DOCUMENT RESUME

ED 473 754 CE 084 541

AUTHOR	Frideres-Poos, Jose; Engel, Gilbert; Lenert, Jerry
TITLE	Vocational Education and Training in Luxembourg. Second Edition.
INSTITUTION	European Centre for the Development of Vocational Training, Thessaloniki (Greece).
REPORT NO	HX-22-99-854-EN-C
ISBN	ISBN-92-828-7481-8
PUB DATE	1999-00-00
NOTE	94p.; For the first edition (1994) see, ED 387 703.
AVAILABLE FROM	Bernan Associates, 4611-F Assembly Drive, Lanham, MD 20706-4391. Tel: 800-274-4447 (Toll Free); e-mail: query@bernan.com; Web site: http://www.bernan.com (# 7012 EN; 18.50 Euros). For full text: http://www2.trainingvillage.gr/etv/publication/download/monograf/7012en/7012en.html. For full text (French): http://www2.trainingvillage.gr/ etv/publication/download/ monograf/ 7012fr/7012fr.html.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	EDRS Price MF01/PC03 Plus Postage.
DESCRIPTORS	*Apprenticeships; Continuing Education; Developed Nations; Educational Certificates; Educational Finance; *Educational Legislation; Elementary Secondary Education; Federal Government; Foreign Countries; Free Education; Higher Education; Job Training; National Programs; Noncollege Bound Students; Postsecondary Education; *Student Certification; *Vocational Education
IDENTIFIERS	*Luxembourg

ABSTRACT

The national education system in Luxembourg--and especially its vocational training system--has certain special features. Given the small size of the country and its traditional openness toward the outside world, it presently offers only one full-length cycle of university-level studies, a course in industrial engineering. Luxembourgers are trilingual: from primary school onward they learn Luxembourgish, German, and French. The most distinctive feature of vocational training is its school-based provision of vocational training along the same lines as the German dual system. General educational subjects and theoretical technical and vocational subjects are taught in the school; practical instruction for most occupations is provided in the workplace. For most pupils in technical secondary education, this is not a deliberate career choice, but the result of difficulties in keeping up with secondary education, the goal of which is to prepare young people for university studies. Apprenticeship is an alternative training system and the traditional route for vocational training. The Ministry of Education and Vocational Training, public sector, and private sector provide continuing vocational training. A tenet of public education is that it is free of charge; all costs are borne by the state budget or communes' budgets. (Appendixes include acronyms and abbreviations; addresses of 10 leading organizations; glossary; and 14-item bibliography.) (YLB)

Reproductions supplied by EDRS are the best that can be made from the original document.

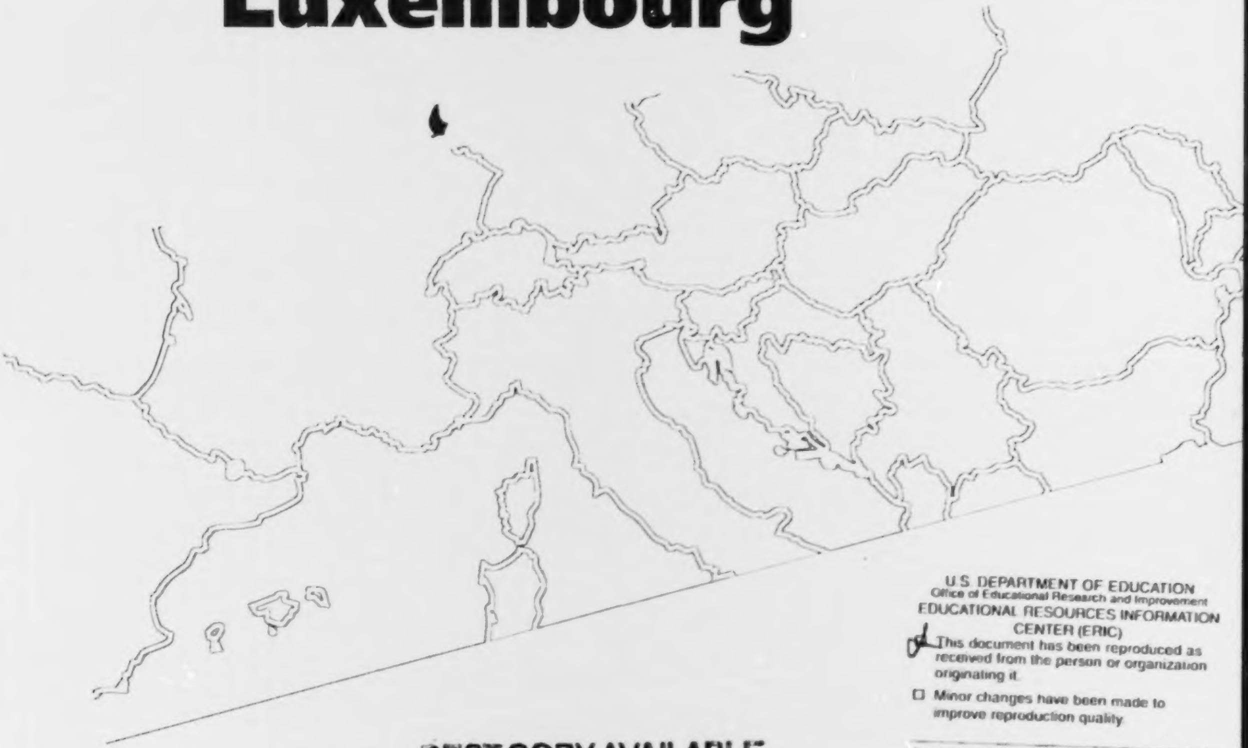
ED 473 754

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

B. Brenne

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

Vocational education and training in Luxembourg



U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

CEDEFOP

Vocational education and training in Luxembourg

This monograph has been produced by:

José Frideres-Poos, Head of the Lycée Technique, École de Commerce et de Gestion (LTECG)
Gilbert Engel, teacher seconded to the Ministry of Education
Jerry Lenert, education expert, chargé de mission

on behalf of Cedefop — European Centre for the Development of Vocational Training
Project coordinators: Michael Adams, Reinhard Nöbauer
under the responsibility of Stavros Stavrou, Deputy Director of Cedefop

Second edition 1999

Published by
Cedefop — European Centre for the Development of Vocational Training
Europe 123, GR-57001 Thessaloniki (Pylea)

Postal address:
PO Box 22427
GR-55102 Thessaloniki

Tel. (30) 310 49 01 11
Fax (30) 310 49 00 20
E-mail: info@cedefop.eu.int
Homepage: www.cedefop.eu.int
Interactive web site: www.trainingvillage.gr

The Centre was established by Regulation (EEC) No 337/75 of the Council of the European Communities, amended by Regulation (EC) No 251/95 of 6 February 1995 and by Regulation (EC) No 354/95 of 20 February 1995.

A great deal of additional information on the European Union is available on the Internet.
It can be accessed through the Europa server (http://europa.eu.int).

Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2002

ISBN 92-828-7481-8

© European Centre for the Development of Vocational Training, 2002

All rights reserved

Printed in Belgium

Introduction by Cedefop

Objectives and target groups

The publication of this description of vocational education and training in Luxembourg is a step towards updating and extending the series of monographs on the Member States — 12 at that time — that Cedefop published between 1993 and 1996. The series now includes the 15 Member States as well as the additional countries covered by the agreement on the European Economic Area (EEA). Its purpose is to help 'foreigners' interested in this subject to understand vocational education and training (VET) in Luxembourg by providing them with an overall view of the system. It is aimed at any person responsible for, and concerned with, VET policy issues, researchers in this field and directors of vocational training services or establishments, as well as trainers and teachers, whether working at EU or national level, for government agencies or for organisations run by the social partners. While this text will act as a useful reference document for some readers, other readers may prefer to read it in its entirety before they visit Luxembourg for a study visit or to set up or implement a bi- or multilateral project.

Content and structure

The volumes in this series set out to describe initial and continuing education and training (VET). As far as initial VET is concerned, this means including provision which is, in some cases, the responsibility of ministries of education and employment or social affairs. As far as continuing VET is concerned, they cover provision for both the employed and unemployed, usually by a wide range of governmental bodies and ministries, by private and social partner organisations.

The structure of the report (see Contents) has been laid down in some detail by Cedefop, which placed limits on how long it should be. This is to make it easier for readers to make comparisons between the training systems in various EU Member States. The structure is, in general terms, similar to that adopted for the reports on Member States commissioned in 1992, but there have been some changes such as the addition of a chapter on what we have called 'qualitative aspects', giving information on certification, training of trainers and guidance. We have asked the authors of all monographs, including those updating the existing ones, to adopt this modified structure so that readers wishing to make comparisons between systems will find it more convenient.

Choice of authors and consultation procedures

With this series, Cedefop has endeavoured to create a product, which is in some ways, impossible to produce. We wanted a report written by a person with inside knowledge of the system in question that could also be readily understood by an outside reader. It followed that the person/institution selected as the author was resident in the country described and wrote, unless he/she chose otherwise, in his/her mother tongue. Cedefop played the role of the outside reader during discussions of the draft text in order to draw authors' attention to points that might not be readily understood by the target audience.

Cedefop also stipulated that authors should consult the main parties concerned by VET in their countries when drawing up the initial version of their report. The draft text was therefore sent not only to the various public bodies responsible for organising the system and providing VET, but also to the main bodies representing the social partners. Members of Cedefop's Management Board in the countries in question were able to provide valuable help in this respect.

Publication and updating

Cedefop intends, resources permitting, to publish printed versions of these monographs in their original language and in English. In exceptional circumstances, some monographs may also be published in other languages. Experience shows, however, that the time required for translation and preparation of a printed publication and the pace of change in the systems described means that reports can never be entirely up to date. It is for this reason that Cedefop is also using electronic publishing methods so that reports can be summarised and kept up to date on its interactive Internet site (http://www.trainingvillage.gr).

Comments and feedback

As mentioned above, Cedefop is aware that choices had to be made when preparing this series. We should be grateful to hear whether readers feel that the choices that we made as regards the scope, content and structure of the reports were correct. We should be happy to receive comments by letter, fax or electronic mail.

Vocational education and training in Luxembourg

Luxembourg is a small and prosperous country with a very low level of unemployment, located right at the heart of the European Union. Nevertheless, its vocational education and training system faces very specific and virtually unique problems. Luxembourg has three official languages. It also has a large immigrant population with their own mother tongues. Lastly, the country is located in a region where other countries have high unemployment rates, so that there is a whole community working in Luxembourg but living elsewhere. Special measures have been adopted to assist people experiencing difficulty in the educational field at different ages, but, even so, the system gives the impression of being quite rigid, with basic choices having to be made at fairly early ages. Moreover, schools and training establishments have relatively little autonomy. Traditional apprenticeship is still a very important factor and is an integral part of the VET system, which is entirely administered — at least in the public sector — by the Ministry of Education and Vocational Training. The social partners have a very important role in both initial and continuing training.

Cedefop is very grateful to Ms José Frideres-Poos, Mr Gilbert Engel and Mr Jerry Lenert, the authors of this monograph, who have been very receptive to the observations and proposals for changes made by the Centre. We trust that, through our joint efforts, our readers will find this a useful tool.

Stavros Stravrou
Deputy Director

J. Michael Adams   Reinhard Nöbauer
Project coordinators

Thessaloniki, June 1999

Contents

Authors' preface 9

Chapter 1 — Background information 13
1.1. Political and administrative structures 13
  1.1.1. Luxembourg, a parliamentary democracy 13
  1.1.2. Luxembourg, a multilingual country 13
  1.1.3. Luxembourg, the smallest of the 15 Member States of the European Union 13
  1.1.4. Administration 13
  1.1.5. The responsibilities of the Ministry of Education and Vocational Training 14
1.2. Population 14
  1.2.1. Population structure 14
  1.2.2. Population trends in Luxembourg 15
1.3. The economy 16
  1.3.1. Macroeconomic policy and economic growth 16
  1.3.2. Weaknesses and risks 16
  1.3.3. Labour market and unemployment 17
  1.3.4. Special features of the labour market 19

Chapter 2 — The educational system and its development 21
2.1. Nursery school, pre-school and primary education 21
  2.1.1. Nursery school 21
  2.1.2. Pre-school education 21
  2.1.3. Primary education 21
2.2. Post-primary education 23
  2.2.1. Admission to post-primary education 24
  2.2.2. Secondary education 24
  2.2.3. Technical secondary education 25
2.3. Post-secondary education 27
  2.3.1. Overview 27
  2.3.2. Legislative framework 27
  2.3.3. Two-year cycles of higher education (bac + 2) 27
    2.3.3.1. Advanced technician training 27
    2.3.3.2. Advanced management studies 28
  2.3.4. Three-year cycles of higher education (bac + 3) 28
    2.3.4.1. Institute for Educational and Social Studies 28
    2.3.4.2 Higher Institute for Educational Studies and Research 28
  2.3.5. Four-year cycles of higher studies (bac + 4) 29
    2.3.5.1. Higher Institute of Technology 29
  2.3.6. The university cycle 29
    2.3.6.1. University Centre 29
2.4. Special education 30
2.5. Private education 31
2.6. The structure of the secondary school population 33
  2.6.1. Trends in the school population 33
  2.6.2. Future trends in the school population 34

Chapter 3 — The vocational education and training system 35
3.1. History of vocational education and training 35
  3.1.1. Law of 5 January 1929 on apprenticeship and its amendment in1945 35
  3.1.2. Establishment of general vocational education 35
  3.1.3. Establishment of middle level education 35
  3.1.4. Establishment of technical secondary education 35
  3.1.5. Adaptation of vocational training and technical secondary education 36
  3.1.6. Reform of secondary education 36
  3.1.7. Reform of technical secondary education and continuing vocational training 37
  3.1.8. Establishment of a preparatory course for technical secondary education 37
  3.1.9. Reorganisation of education for healthcare professionals 37
  3.1.10. Reform of master craftsmanship 38
  3.1.11. Reform of higher education 38
  3.1.12. Role of the social partners in initial vocational training 38

3.2. Initial vocational education and training 40
3.2.1. Preliminary comment on technical secondary education 40
3.2.2. Legal framework and organisation of studies 40
3.2.3. Preparation for technical secondary education 41
3.2.4. Organisation of different cycles of technical secondary education 42
3.2.4.1. The lower cycle of technical secondary education 42
3.2.4.2. The intermediate cycle of technical secondary education 42
3.2.4.3. The advanced cycle of technical secondary education 44
3.2.4.4. Progression criteria 46
3.2.4.4.1. The progression system 46
3.2.4.4.2. The transfer from one cycle to another 47
3.2.5. Apprenticeship 48
3.2.5.1. Conditions of admission 48
3.2.5.2. Technical and vocational proficiency certificate 48
3.2.5.3. Preliminary technical and vocational certificate 49
3.2.5.4. Manual proficiency certificate 49
3.2.6. Master craftsmanship 50
3.2.7. Initial post-secondary training 51
3.2.7.1. Advanced studies for the healthcare professions 51
3.2.7.1.1. Anaesthesia-resuscitation nursing 52
3.2.7.1.2. Midwifery 52
3.2.7.1.3. Technical medical assistant in surgery 52
3.2.7.1.4. Psychiatric nursing 52
3.2.7.1.5. Paediatric nursing 52
3.2.7.2. Advanced technician's certificate (bac + 2) 52
3.2.7.3. Advanced management studies (bac + 2) 53
3.2.7.4. Institute for Educational and Social Studies (bac + 3) 54
3.2.7.5. Higher Institute for Educational Studies and Research (bac + 3) 55
3.2.7.6. Course in industrial engineering at the Higher Institute of Technology (bac + 4) 56
3.2.8. Training courses at the Luxembourg University Centre 57
3.2.9. Training/employment organised by the Luxembourg Institute for Banking Studies 58
3.3. Continuing vocational education and training 59
3.3.1. Legislative framework and objectives 59
3.3.2. Continuing vocational training organised by the Ministry of Education and Vocational Training 59
3.3.2.1. Context of the law of 4 September 1990 59
3.3.2.2. Continuing vocational education centres 60
3.3.2.3. Adult training service 61
3.3.3. Continuing vocational training organised by the vocational chambers and the social partners 61
3.3.3.1. The vocational chambers 61
3.3.3.1.1. The Chamber of Trades 61
3.3.3.1.2. The Chamber of Commerce 62
3.3.3.1.3. The Chamber of Private-sector Employees 62
3.3.3.2. The Association of Luxembourg Banks and Bankers 63
3.3.4. Mixed providers 63
3.3.4.1. Luxembourg Agency for Productivity Enhancement 63
3.3.4.2. Public research centres 64
3.3.4.3. National Institute for the Development of Continuing Training 64
3.3.4.4. Advanced College of Work 64
3.3.4.5. Institute of Economic and Social Training 65
3.3.5. Private-sector providers 65

Chapter 4 — The regulatory and financial frameworks 67
4.1. The regulatory framework 67
4.2. The financial framework 68
4.2.1. Growth in the budget of the Ministry of Education and Vocational Training 68
4.2.2. The Ministry of Education and Vocational Training's budget in the context of the State budget 69
4.2.3. Investment in vocational training 69

4.2.4. Financial support for pupils and trainees 70
4.2.5. The financial incentives for employers' investing in initial training 70
4.2.6. The financial incentives for employers' investing in continuing vocational training 71
4.2.7. The employers' investment in continuing vocational training 72
4.2.8. The financial incentives for investment by individuals in continuing vocational training 72

Chapter 5 — Qualitative aspects 73
5.1. Certification and qualifications 73
5.1.1. Administration and coordination of the initial education system 73
5.1.2. The lower cycle of secondary education 73
5.1.3. The intermediate cycle of secondary education 73
5.1.4. The higher cycle of secondary education 73
5.2. The training of trainers 77
5.2.1. Teachers and trainers working in initial vocational training 77
5.2.2. Regulation of the training of trainers and teachers in initial vocational training 77
5.2.3. The continuing training of trainers and teachers in initial vocational training 78
5.2.4. Trainers in continuing education and training 79
5.3. Vocational and school guidance 79
5.3.1. Structure 79
5.3.2. Psychological and Educational Guidance Centre 79
5.3.3. Local action for youth 80
5.3.4. Employment Authority's Department of Vocational Guidance 80

Chapter 6 — Trends and perspectives 81
6.1. Training and employment 81
6.1.1. The law of 31 July 1995 on employment and training 81
6.1.2. Tripartite training 81
6.1.3. The national action plan to promote employment 82
6.2. Continuing vocational training 82
6.3. Integration through schooling 83
6.3.1. Language situation in workplaces and schools 83
6.3.2. Languages used in teaching 84
6.3.3. Cross-border cooperation 84
6.3.4. Language school 85

Annexes

Annex 1: Acronyms and abbreviations 89
Annex 2: Addresses of leading organisations 91
Annex 3: Glossary 93
Annex 4: Bibliography 95

Authors' preface

This monograph on the vocational training system in Luxembourg was produced in 1998 on the basis of the first monograph published in 1994. It takes into account all the changes that have occurred over the past few years. A special effort has been made to provide recent statistics. It has been produced by the joint efforts of three authors who are very familiar with the various aspects of vocational training in Luxembourg as a result of their professional experience.

As is traditional in Luxembourg, the document has been endorsed by the social partners concerned before publication.

The national education system in Luxembourg — and especially its vocational training system — has certain special features. Given the small size of the country and its traditional openness towards the outside world, the Grand Duchy at present offers only one full-length cycle of university-level studies, a course in industrial engineering. Similarly, its language status is very special. Luxembourgers are trilingual: from primary school onwards they learn Luxembourgish, German and French. To foster the integration of its very large foreign population, the Ministry of Education and Vocational Training has formulated a special strategy for these young people.

The most distinctive feature of vocational training in Luxembourg is its school-based provision of vocational training along the same lines as the German *Dualsystem*. General educational subjects and theoretical technical and vocational subjects are taught in the school, whereas practical instruction for most occupations is provided in the workplace.

José Frideres-Poos

Lycée technique
École de commerce et de gestion
Rue Marguerite de Brabant
L-1254 Luxembourg
Tel. (352) 44 41 55
Fax (352) 45 46 02
E-mail: direction@ltecg.lu

Jerry Lenert

Ministère de l'éducation nationale et de la formation professionnelle
29, rue Aldringen
L-2926 Luxembourg
Tel. (352) 478 52 33
Fax (352) 478 41 16
E-mail: lenert@men.lu

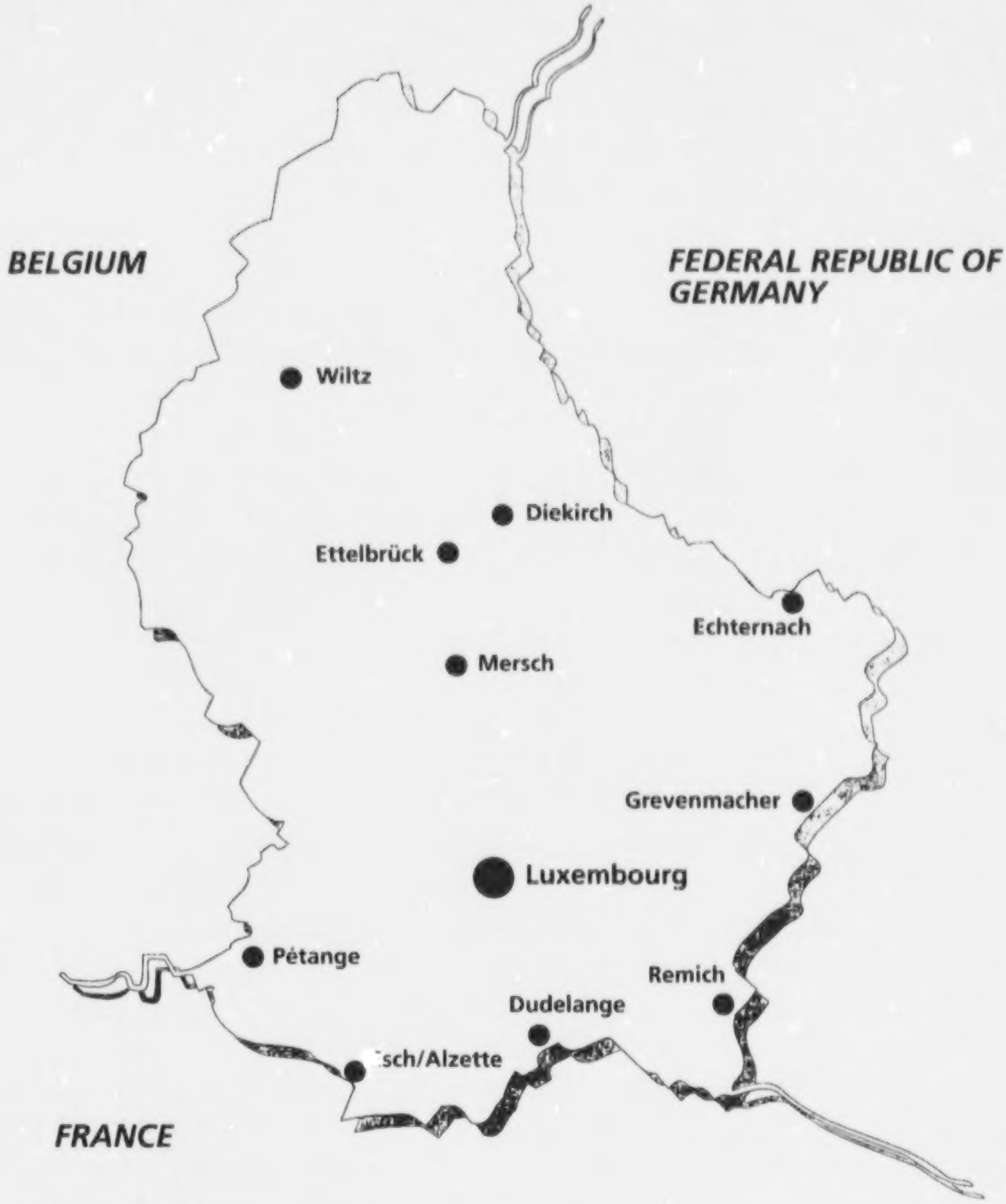
Gilbert Engel

Ministère de l'éducation nationale et de la formation professionnelle
29, rue Aldringen
L-2926 Luxembourg
Tel. (352) 478 51 41
Fax (352) 478 52 64
E-mail: gilbert.engel@ci.educ.lu

Luxembourg, June 1999

Vocational education and training in Luxembourg

THE GRAND DUCHY OF LUXEMBOURG


BELGIUM
FEDERAL REPUBLIC OF GERMANY
Wiltz
Diekirch
Ettelbrück
Echternach
Mersch
Grevenmacher
Luxembourg
Pétange
Remich
Dudelange
Esch/Alzette
FRANCE

● Location of a technical secondary school (lycée technique)

Chapter 1
Background information

1.1. Political and administrative structures

1.1.1. Luxembourg, a parliamentary democracy

Luxembourg is a parliamentary democracy in the form of a constitutional monarchy. Executive authority is vested in the Grand Duke, who exercises it through the government. His decisions must be countersigned by a member of the government, who assumes political responsibility for them. Legislative power is exercised jointly by the Grand Duke and the Chamber of Deputies. The judiciary is independent of both the other arms of the government.

1.1.2. Luxembourg, a multilingual country

Luxembourg is by statute a multilingual country. The law of 24 February 1984 stipulates that the national language is Luxembourgish (a Moselle-Franconian dialect which is the vernacular of the people of Luxembourg). Beside Luxembourgish, French and German are also official languages and are for communication with non-Luxembourgers and for the drafting of legislation and administrative texts.

Because of its geographical position, Luxembourg has always been a multilingual country. In recent times, this situation has been accentuated by the high proportion of foreign residents. As a result, the teaching of languages, even in the area of vocational training, is a very important factor throughout the school curriculum.

With about 70 % of its population living in towns and with an economic structure in which 65 % of its gross domestic product and 70 % of its employment are derived from the service sector, Luxembourg is one of Europe's post-industrial countries.

1.1.3. Luxembourg, the smallest of the 15 Member States of the European Union

With an area of 998 square miles (2 586 km^2), Luxembourg is the smallest of the 15 Member States of the European Union. Lying between Belgium, Germany and France, it is, with Austria, the only European Union country with no direct access to the sea.

From the geological and geographical point of view, the country is divided into two natural regions: Oesling in the north and 'le Bon Pays' in the south, representing 32 % and 68 % of its territory respectively.

The maximum distances are 82 km from north to south and 57 km from east to west. Its frontiers total 356 km in length: 73 km with France, 135 km with Germany and 148 km with Belgium.

1.1.4. Administration

In the small area of the Luxembourg State there are neither provinces nor *départements*. The commune is one of the few applications of the principle of geographical decentralisation. Administratively, the country is divided into three districts (Luxembourg, Diekirch and Grevenmacher), 12 cantons and at present 118 communes. The communes serve as the areas for the administrative offices of the general services provided by the central authority or branches of the State public establishments.

As regards the structure of education, the commune is a partner of the Ministry of Education and Vocational Training in pre-school and primary education. It supervises and organises locally through the school board (*commission scolaire*). It is also involved in the appointment of teaching staff.

1.1.5. The responsibilities of the Ministry of Education and Vocational Training

In the Grand Duchy, the Ministry of Education and Vocational Training is responsible for every level of education, ranging from pre-school to university. With particular reference to vocational training, it should be pointed out that the Ministry is responsible for both the part of vocational training that is school-based and for the part that is conducted in the workplace, although the chambers of commerce and industry also have responsibilities.

1.2. Population

1.2.1. Population structure

As of 1 January 1998, the total population of the Grand Duchy was 423 700. At the same time, the number of foreign residents in the Grand Duchy was 147 700. Most of the foreigners living in Luxembourg (approximately 90 %) are European Union nationals, the largest group being Portuguese and Italian.

Table 1. **The population in Luxembourg, 1991 to 1998 (in 1 000)**

	1991	1996	1997	1998
Total population	384.4	412.8	418.3	423.7
Women	196.1	210.2	219.9	215.5
Luxembourgers	271.4	274.8	275.5	276.0
Foreigners (in 1 000)	113.0	138.0	142.8	147.7
as % of total	29.4	33.4	34.2	34.9
Of whom:				
Portuguese	39.1	51.5	53.1	54.5
Italian	9.5	19.8	19.8	19.9
French	13.0	15.0	15.7	16.5
Belgian	10.1	11.8	12.4	13.2
German	8.8	9.7	9.9	10.0
British	3.2	4.2	4.4	4.4
Dutch	3.5	3.8	3.8	3.8
Other EU	6.6	8.2	8.7	9.1
Others	9.2	14.0	15.0	16.3

SOURCE: *STATISTICAL YEARBOOK 1997 BS, 'LE LUXEMBOURG EN CHIFFRES 1998', STATEC.*

1.2.2. Population trends in Luxembourg

The total population of Luxembourg has grown steadily since the end of the Second World War.

For some decades now, the birth rate has been very low. From 1973, it has been too low for one generation to be replaced by the next. To make up for its declining population, Luxembourg has for a century relied on immigrant workers, and the real cause of its population growth has been this influx.

Table 2. **Natural and migratory movements, 1987 to 1997**

Year	Births	Deaths	Natural surplus	Migration surplus	Total surplus	Population on 31 December
1987	4 238	4 012	226	2 396	2 600	372 000
1988	4 603	3 840	763	3 069	3 800	375 800
1989	4 665	3 984	681	2 857	3 500	379 300
1990	4 936	3 773	1 163	3 942	5 100	384 400
1991	4 986	3 744	1 242	4 173	5 400	389 800
1992	5 149	4 021	1 128	4 255	5 400	395 200
1993	5 353	3 915	1 438	4 243	5 700	400 900
1994	5 451	3 800	1 651	4 004	5 700	406 600
1995	5 421	3 797	1 614	4 610	6 200	412 800
1996	5 689	3 895	1 794	3 672	5 500	418 300
1997	5 503	3 937	1 566	3 832	5 400	423 700

SOURCE: *STATISTICAL YEARBOOK 1997 B303, 'LE LUXEMBOURG EN CHIFFRES 1998', STATEC.*

The large and steadily rising proportion of foreigners creates many problems in the education of immigrant children. Out of an annual total of 936 hours' education, primary school pupils spend an average of 251 to 374 hours learning languages (German, French and Luxembourgish). The consequences of this will be discussed later.

The geographical distribution of the population is very uneven:

— the 'capital/south/west' triangle accounts for over 50 % of the population, but only 13 % of the area of the country;

— the north of the country represents 35 % of the geographical area, but only 9 % of the population.

For many years, this imbalance has been increasing as the population of the capital has grown, due to the recession in the steel industry in the southern part of the country and the expansion of the city of Luxembourg as a European and financial centre. The exodus from rural areas has reached its peak in Luxembourg. Today there is migration towards communes close to the city, which have thus been transformed into dormitory towns.

BEST COPY AVAILABLE

1.3. The economy

1.3.1. Macroeconomic policy and economic growth

The Luxembourg economy is based on solid foundations and satisfies all the convergence criteria laid down by the Maastricht Treaty.

GDP growth in Luxembourg was estimated at 4.1 % in 1997 by the European Commission (4.8 % according to estimates of the Central Statistical and Economic Research Department — Statec). This rate is considerably higher than the average for the European Community as a whole (2.7 % in 1997) and than the rate for the Grand Duchy's main economic partners. It reflects the dynamic growth of the country, in the wake of its vigorous expansion in the exporting of goods and services and the solidity of the production structures underlying them. According to Commission estimates, growth should be even higher in 1998 (+ 4.2 %), in 1999 (+ 3.8 %) and in 2000 (+ 4.3 %) (1).

Although in 1997 the industrial sector reported substantial growth (+ 6.4 % in volume) due to the economic upturn and industrial diversification, over a longer period the most dynamic sector has been the branch of 'other market services'. In 1997, its 5.3 % growth rate was again higher than the average for the economy. It should also be pointed out that in 1997 the growth in the GDP was partly due to a steep rise in investments (+ 14.1 %), a fact that should underpin longer-term growth.

1.3.2. Weaknesses and risks

Although the foundations of the Luxembourg economy are sound, there are also certain weaknesses:

- the unemployment rate has doubled since 1985, from 1.7 % to 3.6 % in 1997, although in 1998 it fell back to an annual average of 3.1 %;
- the rate of female activity (38 %) is one of the lowest in the European Union, where the average is 45 %;
- the activity rate in the over-50s age group is only 20 %, compared with 28 % in the European Union.

The aim of structural policy, particularly the policy on industrial diversification, is to base the production structures of the Luxembourg economy on an assortment of diversified activities, integrated in the industrial fabric of Europe and geared to Community export markets.

According to European Commission data, Luxembourg's economic growth stems mainly from the inflow of new capital (direct foreign investment) and the increase in the labour force (immigration, especially of EU workers and frontier workers). On the other hand, the total productivity of the factors of production (technological progress) makes only a limited contribution to this growth.

In structural policy, a special effort should be devoted to implementing a policy of internally generated development, which should be based on more recently established enterprises. The aim should be to promote entrepreneurship, research and development and innovation within enterprises as well as the adaptability of both employers and workers. This approach should lead to substantial investment by enterprises in continuing training.

---

(1) Note de conjoncture 3/98, Statec.

The public sector could usefully support these efforts, for example by setting up and developing a technological research infrastructure and effective continuing training in the public sector.

The following table gives an idea of trends in total employment broken down by branch of activity.

Table 3. **Employment by branch of activity, 1970 to 1997 (in 1 000)**

Branch of activity	**1970**	**1980**	**1990**	**1992**	**1994**	**1995**	**1996**	**1997**
Agriculture, forestry and fisheries	13.6	8.7	6.2	6.0	5.9	5.8	5.7	5.7
Energy and water	1.4	1.5	1.4	1.4	1.4	1.4	1.8	1.8
Mining and manufacturing industries	46.6	42.1	36.8	35.7	33.2	32.8	32.5	32.3
of which								
— ores and metals	25.0	19.7	11.9	10.4	8.8	3.4	8.4	7.8
Building and civil engineering	13.9	16.4	19.6	22.9	23.8	23.9	24.3	24.5
Market services	49.0	68.7	97.1	105.5	115.4	119.7	121.1	126.9
of which								
— commerce, recycling and repairs	...	25.9	29.9	32.0	32.3	33.2	32.9	33.1
— catering and accommodation	...	7.6	9.8	10.2	11.3	11.5	11.7	11.7
— inland transport	6.9	7.1	8.1	8.7	8.7	9.0	8.4	8.5
— air transport and transport-related activities	0.7	1.8	2.5	2.7	3.6	3.8	3.8	3.9
— communications	1.6	2.1	2.5	2.5	5.2	5.5	4.9	5.0
— credit and insurance institutions	4.3	8.1	17.4	18.0	20.1	20.1	20.0	20.1
— other market services	...	16.1	26.9	31.0	34.3	36.5	39.4	44.6
Non-market services	15.7	20.9	26.1	28.2	28.6	29.9	34.1	35.3
— public administration	13.1	17.1	20.7	22.8	22.9	23.7	26.2	27.4
— other non-market services	2.6	3.8	5.4	5.4	5.7	6.2	7.9	7.9
Total employment	**140.2**	**158.2**	**187.2**	**199.7**	**208.3**	**213.5**	**219.5**	**226.5**

*SOURCE: **STATISTICAL YEARBOOK 1997 B15/211, 'LE LUXEMBOURG EN CHIFFRES 1998', STATEC.***

A feature of the Luxembourg economy is the continuing rise in employment (see Section 1.3.4), mainly in market and non-market services.

1.3.3. Labour market and unemployment

Although it has experienced conjunctural and structural crises, employment in Luxembourg has for many years enjoyed almost uninterrupted growth. Record increases of between 4 % and 5 % were recorded in the late 1980s.

BEST COPY AVAILABLE

The trend towards low economic growth from 1990 to 1992 had only a relatively small impact on employment growth, and the Luxembourg labour force has continued to rise.

Table 4. **Employment trends (blue- and white-collar workers, civil servants), 1990 to 1998**

Year	%	Number
1990/1	+ 3.5	+ 6 173
1991/2	+ 2.8	+ 5 070
1992/3	+ 1.8	+ 3 360
1993/4	+ 2.5	+ 4 704
1994/5	+ 2.8	+ 5 386
1995/6	+ 3.1	+ 6 152
1996/7	+ 3.9	+ 7 974
1997/8	+ 3.9	+ 8 502

SOURCE: **SOCIAL SECURITY RECORDS.**

In other words, from 31 October 1997 to 31 October 1998, the number of people in paid employment rose from 214 123 to 222 625.

This positive rate of job creation has not checked the increase in the number of unemployed (²). Since 1991, this trend has become more marked and in each period the number of unemployed has exceeded the corresponding figure for the previous year.

Table 5. **Unemployment, 1990 to 1997**

Year	Unemployed (average)	% variation
1990	2 060	– 9.0
1991	2 298	+ 11.6
1992	2 734	+ 19.0
1993	3 526	+ 29.0
1994	4 643	+ 31.7
1995	5 130	+ 10.5
1996	5 643	+ 10.0
1997	6 357	+ 11.9

SOURCE: **RECITALS IN THE DRAFT LAW ON THE NATIONAL ACTION PLAN TO PROMOTE EMPLOYMENT.**

(²) Defined as a person without a job, who is available on the labour market and is seeking an appropriate job, who is not covered by an employment scheme, whether or not it is grant-supported, and who has complied with the monitoring obligations imposed by the employment authority.

A detailed analysis of the population of registered unemployed persons as of 31 December 1997 reveals the following:

— unemployed people, who are not Luxembourgers, account for almost 58 % of those registered with the Employment Authority (*Administration de l'emploi — ADEM*). This percentage is higher than that of resident non-nationals in employment (approximately 38 %);

— women account for 44 % of the unemployed whereas they represent only 38 % of all employed people resident in Luxembourg;

— over 42 % of the unemployed have been registered as such for less than three months, 61.3 % of the registered unemployed have been out of work for less than six months, and 17 % could be regarded as long-term unemployed;

— the rate of unemployment among young people is 6 %;

— 46.8 % of the unemployed have not achieved the level of training provided in a technical secondary school *(lycée technique)*.

Although the number of unemployed fell slightly in 1998 (the final figures are not yet available), the general observations on 1997 remain applicable.

1.3.4. Special features of the labour market

The Luxembourg economy is characterised by a strong and steady rise in employment. Between 1985 and 1998, for example, the annual growth rate in paid employment averaged 3.3 %.

This high growth was not sufficient, however, to curb the parallel rise in unemployment, which was more than proportional. From 1985 to 1997, the average annual unemployment rate rose from 1.7 % to 3.6 %, falling back again to 3.1 % in 1998. The annual average number of unemployed rose threefold between 1990 and 1997.

This non-typical trend should be linked with the actual structure of employment in Luxembourg. The most striking feature is undoubtedly the close involvement of the Luxembourg job market in the regional and cross-border labour market. It is increasingly becoming a regional market, making national policy instruments on employment less effective.

The contribution of frontier workers from the *Grande Région* Saar-Lorraine/Rhineland-Palatinate/Belgian Luxembourg has been steadily increasing in volume. Cross-border working expanded by more than 400 % between 1985 and 1998.

Table 6. **Country of origin of frontier workers working in Luxembourg, 1985 to 1998 (in 1 000)**

Year (as of 30 September)	**Belgium**	**Germany**	**France**	**Total**
1985	7 200	2 700	7 000	16 900
1986	7 900	3 300	7 900	19 100
1987	8 900	4 000	9 300	22 200
1988	9 800	4 500	11 300	25 600
1989	11 000	5 400	13 700	30 100
1990	12 300	6 400	16 600	35 300
1991	13 600	7 500	19 800	40 900
1992	14 400	8 000	22 900	45 300
1993	15 100	8 900	24 700	48 700
1994	16 200	9 600	27 300	53 100
1995	17 200	10 200	29 500	56 900
1996	18 300	11 100	32 000	61 400
1997	19 469	12 047	34 265	65 781
1998 (as of 30 June)	20 375	12 968	37 841	71 184

SOURCE: ***STATISTICAL YEARBOOK 1997 B24/IGSS/ADEM.***

Table 6 shows that 53 % of frontier workers live in France, 29 % in Belgium and 18 % in Germany. The trend is obviously in part due to the very high rates of unemployment in the regions bordering Luxembourg and the level of earnings in Luxembourg.

Table 7. **Rate of unemployment in the *Grande Région* (in %)**

Province of Luxembourg (Belgium)	10.8
Rhineland-Palatinate (Germany)	9.4
Saar (Germany)	12.2
Lorraine (France)	11.8

SOURCE: ***EURES.***

At the end of 1997, the total number of unemployed in the *Grande Région* was 580 000.

Chapter 2
The educational system and its development

2.1. Nursery school, pre-school and primary education

2.1.1. Nursery school

Nursery school *(éducation précoce)* is for children aged three or over. Its aim is the overall development of children, and more particularly their language development. Another important aim is to promote good social integration among all levels of society.

Nursery school is an additional but optional year for children who have reached the age of three and provides an opportunity to:

- stimulate their intellectual curiosity
- develop their social, cognitive and affective behaviour patterns
- enhance their language skills as well as
- help any children who are behind to catch up (especially in language).

Until nursery schooling becomes generally available, communes are free to choose whether to provide it.

2.1.2. Pre-school education

Children reaching the age of four before 1 September must attend pre-school education *(éducation préscolaire)* under a Grand Ducal regulation of 2 September 1992.

Local authorities are allowed to admit children to pre-school who have not yet reached the age of four as of 1 September and who were born between 1 September and 31 December, if places are available.

Pre-school establishments come under the supervision of the Ministry of Education and Vocational Training. The communes are responsible for their administration and maintenance. The Ministry of Education and Vocational Training contributes two thirds of the salaries of teaching staff.

2.1.3. Primary education

Any child who has reached the age of six before 1 September of the current calendar year must receive education in the subjects laid down by law over nine consecutive years (in other words, up to the age of 15). Under certain conditions a child may be admitted earlier or later than envisaged.

Primary education *(enseignement primaire)* consists of the first six years of primary studies and special classes (*classes spéciales)*. Admission to a special class (for pupils with major learning difficulties) must be approved by the medical/psychological/teaching commission.

There are various measures to help the children of migrants and children who are finding it difficult to keep up with the normal curriculum. This assistance is in the form of:

— reception classes (*classes d'accueil)* for children of foreign nationality who have not yet sufficiently mastered the German and/or French languages;

- support classes (*cours d'appui)* especially for the learning of German;
- interim classes (*classes d'attente*), the lower-cycle curriculum is taught over three rather than two years.

Pupils receive 29 lessons a week: six mornings (from Monday to Saturday) and three afternoons (Monday, Wednesday and Friday).

The Ministry of Education and Vocational Training contributes two thirds of the salaries of teaching staff, and communes contribute one third. The communes are responsible for financing the equipment and operating costs.

The curriculum for primary schools is laid down by the Ministry of Education and Vocational Training and is taught throughout the country.

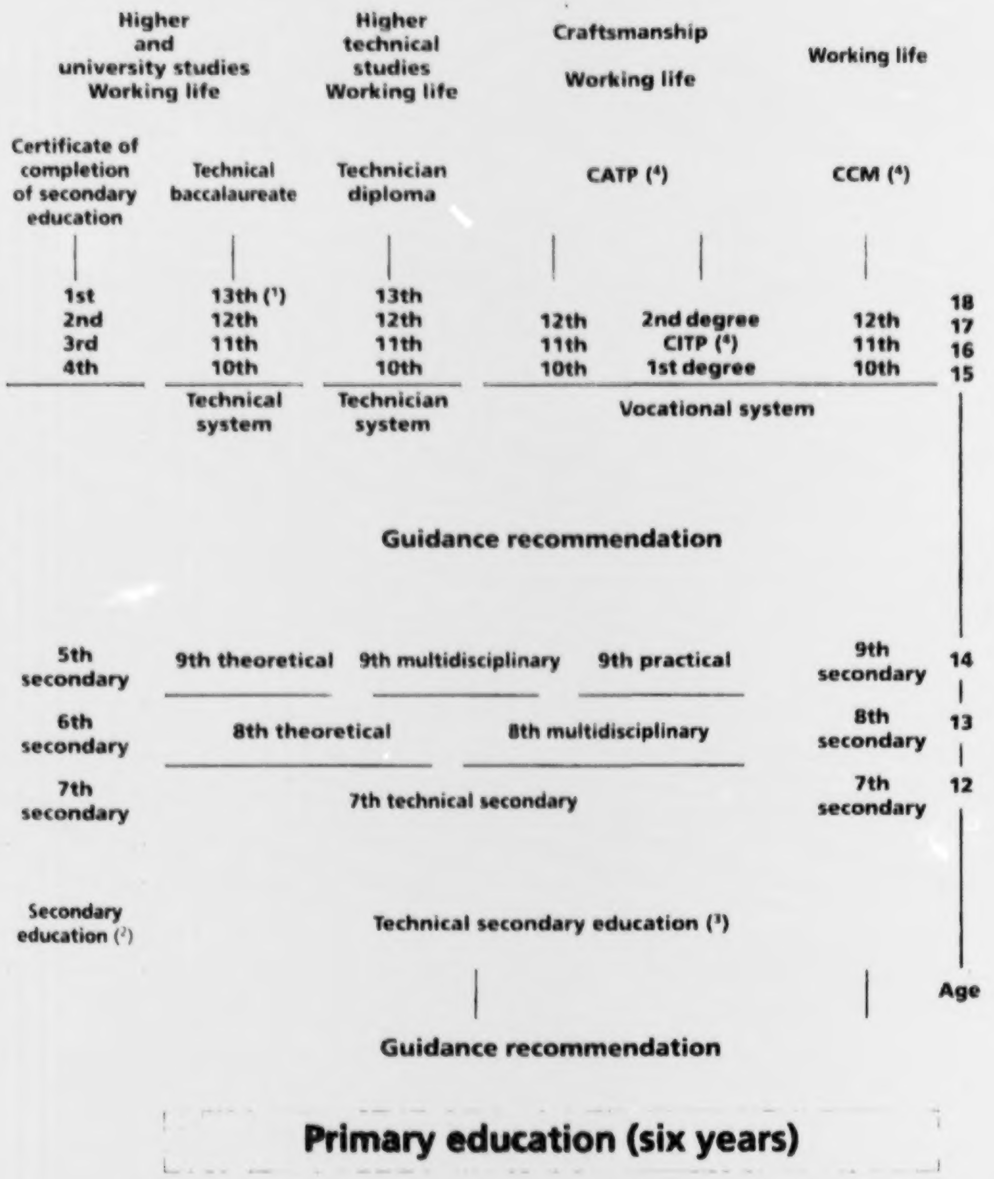
The monitoring of primary education is the responsibility of the State and the commune. State supervision is exercised by the Ministry of Education and Vocational Training and, under its instructions, by the teaching commission (³) (*commission d'instruction*) and the members of the inspectorate (⁴) (*inspectorat*). Local supervision of schools is conducted by the commune and the school board. Monitoring of religious education (solely the Catholic catechism) in primary schools is the responsibility of the religious leader.

(³) The teaching commission is made up of: a father or mother of a child attending the primary school, the bishop or his delegate, the Inspector-General, an inspector, the head of the teaching institute and a teacher.

(⁴) The inspectorate consists of an Inspector-General and 15 inspectors or first-class inspectors.

2.2. Post-primary education

Figure 1. Structure of post-primary education


Higher and university studies Working life
Higher technical studies Working life
Craftsmanship Working life
Working life
Certificate of completion of secondary education
Technical baccalaureate
Technician diploma
CATP (4)
CCM (4)
1st
2nd
3rd
4th
13th (1)
12th
11th
10th
13th
12th
11th
10th
12th
11th
10th
2nd degree
CITP (4)
1st degree
12th
11th
10th
18
17
16
15
Technical system
Technician system
Vocational system
Guidance recommendation
5th secondary
9th theoretical
9th multidisciplinary
9th practical
9th secondary
14
6th secondary
8th theoretical
8th multidisciplinary
8th secondary
13
7th secondary
7th technical secondary
7th secondary
12
Secondary education (2)
Technical secondary education (3)
Age
Guidance recommendation
Primary education (six years)

---

(1) 14th for the health and social professions division.
(2) Designation of classes 7 to 1 (French model).
(3) Designation of classes 7 to 13 (German model).
(4) See 'Acronyms and abbreviations' (Annex 1).

SOURCE: ***MINISTRY OF EDUCATION AND VOCATIONAL TRAINING (MENFP).***

BEST COPY AVAILABLE

2.2.1. Admission to post-primary education

After the sixth year of primary education, all children move up to post-primary education (*enseignement postprimaire*). There are two types of post-primary schooling: secondary education (*enseignement secondaire*) and technical secondary education (*enseignement secondaire technique*). Preparatory education (*enseignement préparatoire*) is incorporated into the technical secondary school. In other words children may be directed towards secondary education, technical secondary education or preparatory education. Since the 1996/97 school year, the examination for admission to either type of education has been replaced by a guidance procedure. The guidance recommendation provided by a guidance board takes account of:

- the parents' views;
- the views of the teacher of the sixth-year primary school class on the development of the pupil's skills;
- school reports for the sixth year of primary education;
- the results of a series of standard tests arranged during the sixth year of primary education.

If the parents dispute the guidance recommendation, they may enrol their children for an examination for admission to secondary education or appeal against admission to preparatory education.

2.2.2. Secondary education

Secondary education (*enseignement secondaire)* is governed by the organic law of 10 May 1968, as amended by the law of 22 June 1989.

The goal of secondary education is as follows: 'secondary education for boys and girls is essentially to prepare them, on the basis of a thorough grounding in general education, for higher studies at university level'.

For admission to the foundation class (*classe d'orientation*) that serves as a transition from primary to secondary education, the pupil must have received the positive assessment of a guidance council or, if not, have passed an appeal examination covering the curriculum for the sixth year of study.

Secondary education lasts for seven years. It consists of a lower division (*division inférieure*) and an upper division (*division supérieure*), which in turn is divided into two cycles: a 'multidisciplinary cycle' (*cycle polyvalent*) and a 'specialist cycle' (*cycle de spécialisation*).

The **lower division** consists of classes 7, 6 and 5. From class 6, pupils may opt either for a classical education (*éducation classique),* with Latin as a third language and English as a fourth language from class 5, or for modern education (*éducation moderne),* with English as a third language.

The multidisciplinary cycle of the **upper division** (classes 4 and 3) offers two streams: arts and science.

The specialist cycle (classes 2 and 1) has seven sections. Four of these are in the arts stream:

- Section A1: Main subjects: languages and humanities
- Section A2: Main subjects: humanities and social sciences
- Section E: Main subjects: the plastic arts
- Section F: Main subjects: music (with parallel attendance of a conservatory or music school);

and three are in the science stream:

- Section B: Main subjects: mathematics and physics
- Section C: Main subjects: natural science and mathematics
- Section D: Main subjects: economics (mathematics stream).

Secondary education leads to an examination at national level, which confers a diploma of completion of secondary education.

2.2.3. Technical secondary education

Technical secondary education (*enseignement secondaire technique*) is governed by the law of 4 September 1990. The purpose of technical secondary education is as follows: 'technical secondary education, which is common to boys and girls, prepares them for working life in close relationship with the economy, providing pupils with a general, social, technical and vocational education and training. It also prepares them for higher education'. This form of education will be described in detail in Section 3.2.4.

Table 8. Breakdown of pupils, by school establishment, in the various cycles and systems of technical secondary and general secondary education, school year 1996/97

	Technical secondary education						Secondary education			Overall total
	First cycle	Technical system	Technician system	Vocational system	Parallel system	Total	First cycle	Middle/ upper cycles	Total	
Lycée Robert Schuman							476	449	**925**	
Lycée Michel Rodange							589	742	**1 331**	
Athénée de Luxembourg							658	619	**1 277**	
Lycée de garçons Esch/Alzette							375	428	**803**	
Lycée Hubert Clément Esch/Alzette							426	470	**896**	
Lycée de garçons Luxembourg							521	656	**1 177**	
Lycée classique Diekirch	547					**547**	622	536	**1 158**	**1 705**
Lycée classique Echternach	266	135				**401**	389	336	**725**	**1 126**
Lycée du Nord	530	194	74	72	27	**897**	163	153	**316**	**1 213**
Lycée technique École de commerce et de gestion		453				**453**				
Lycée technique agricole	200		103	91	92	**486**				
Lycée technique des arts et métiers	397	141	830		64	**1 432**				
Lycée technique de Bonnevoie	795	153	124	153	203	**1 428**	49	11	**60**	**1 488**
Lycée technique du Centre	1 137	181	226	241	1 071	**2 856**				
Lycée technique Esch/Alzette	1 160	345	275	143	318	**2 241**				
Lycée technique Ettelbrück	693	414	113	119	235	**1 574**				
Lycée technique hôtelier Alexis Heck			59	168		**227**				
Lycée technique Joseph Bech	447		35	[illegible]	25	**565**				
Lycée technique Mathias Adam	829	104	66		36	**1 035**	65		**65**	**1 100**
Lycée technique Michel Lucius	539	682				**1 221**				
Lycée technique Nic Biever	641	70	9	55	15	**790**	62		**62**	**852**
Lycée technique Professions de santé		410		28		**438**				
Total — public sector	**8 181**	**3 282**	**1 914**	**1 128**	**2 086**	**16 591**	**4 395**	**4 400**	**8 795**	**25 386**
École privée Fieldgen	502	153	77			**732**	259	188	**447**	**1 179**
Lycée privé Notre-Dame	151	50				**201**	137	84	**221**	**422**
Lycée technique privé Sainte-Anne	362	61	52	54		**529**				
Lycée technique privé Marie-Consolatrice	330	77	66	31	12	**516**				
Lycée technique privé Émile Metz	260		34	145		**439**				
École privé Sainte-Elisabeth	12					**12**				
Total — private sector	**1 617**	**341**	**229**	**230**	**12**	**2 429**	**396**	**272**	**668**	**3 097**
Overall total	**9 798**	**3 623**	**2 143**	**1 358**	**2 098**	**19 020**	**4 791**	**4 672**	**9 463**	**28 483**

SOURCE: *MINISTRY OF EDUCATION AND VOCATIONAL TRAINING, LEVY 1997.*

BEST COPY AVAILABLE

2.3. Post-secondary education

2.3.1. Overview

After they have passed one of the final examinations in secondary education or technical secondary education, pupils may pursue their studies in Luxembourg or abroad. In Luxembourg, post-secondary education (*enseignement postsecondaire*) consists of:

- the two-year cycle of studies leading to the advanced technician's certificate (*brevet de technicien supérieur — BTS*) organised in certain *lycées techniques* (see Sections 2.3.3.1 and 3.2.7);
- the three-year cycle of higher education to train primary and pre-school teachers at the Higher Institute for Educational Studies and Research (*Institut supérieur d'etudes et de recherches pédagogiques — ISERP*) (see Sections 2.3.4.2 and 3.2.7.5) and training as a community educator *(éducateur gradué)* at the Institute for Educational and Social Studies *(Institut d'études éducatives et sociales — IEES)* (see Sections 2.3.4.1 and 3.2.7.4);
- the short two-year cycle of advanced management studies (see Sections 2.3.3.2 and 3.2.7.3);
- the university courses providing the first two-year cycle of university education, aligned with the curricula of universities in neighbouring countries (see Sections 2.3.6.1 and 3.2.8);
- the four-year cycle of higher education for industrial engineers at the Higher Institute of Technology *(Institut supérieur de technologie — IST)* (see Sections 2.3.5.1 and 3.2.7.6).

2.3.2. Legislative framework

Luxembourg did not have an overall legislative framework for post-secondary education until 11 August 1996. Up to then, each of the various institutions operating at this level had its own legislative framework.

In the law of 11 August 1996, the government reformed higher education, setting out its goals:

- to provide initial and continuing training;
- to conduct scientific and technological research and to use the results;
- to disseminate scientific and technological information and culture;
- to bring about inter-regional, European and international cooperation.

Apart from these general considerations, the law set out measures common to the University Centre of Luxembourg *(Centre universitaire de Luxembourg)* and the Higher Institute of Technology *(Institut supérieur de technologie)*. Both institutes became public establishments with legal personality. For example, they enjoy financial, administrative, teaching and scientific independence. The establishments are administered as laid down by private law.

2.3.3. Two-year cycles of higher education (bac + 2)

2.3.3.1. Advanced technician training

The advanced technician's certificate (*brevet de technicien supérieur — BTS*) was created under the law of 4 September 1990 reforming technical secondary education. This training is at a higher level than technical secondary education. It is for two or more years, in full- or part-time classes.

The course of studies leading to the *brevet de technicien supérieur* is at present taken at two technical secondary education establishments, which have the following sections:

— accounting and company management;
— secretarial and office skills;
— international marketing and trade;
— animation drawing.

The second year leads to a diploma of completion of studies, the *brevet de technicien supérieur.*

This training will be described in detail in Section 3.2.7.2.

2.3.3.2. *Advanced management studies*

In the academic year 1983/84, the Luxembourg *Centre universitaire* organised, within the Department of Law and Economics, a two-year cycle of studies known as the short cycle of advanced management studies (*cycle court d'études supérieures en gestion*).

In administrative terms, this short cycle comes under the Department of Law and Economics of the *Centre universitaire* and operates in the same way as other sections of that department.

The diplomas of advanced management studies (*diplômes d'études supérieures de gestion*) are final vocational diplomas. These studies lead to jobs in middle management in Luxembourg enterprises, especially in banking, insurance, fiduciary firms, auditors, commerce and small and medium-sized enterprises (SMEs).

This training will be described in detail in Section 3.2.7.3.

2.3.4. Three-year cycles of higher education (bac + 3)

2.3.4.1. *Institute for Educational and Social Studies*

Set up by the Law of 6 August 1990, the Institute for Educational and Social Studies (*Institut d'études éducatives et sociales — IESS*) provides training for teachers and community educators (*éducateurs gradués*).

The studies leading up to the diploma in community education (*diplôme d'éducateur gradué*) are conducted at IEES, either full-time (3 years) or as training for those already working at least half time in an activity that complements a socio-educational occupation (6 years).

The curricula and requirements are identical for both arrangements. Studies consist of three cycles: a preliminary probational one and a second one, where a common core of training is given, especially in the fields of educational science, psychology and self-expression techniques. The third cycle is essentially devoted to specialisation.

Students who have passed the final examination are awarded a diploma in community education (*diplôme d'éducateur gradué)* by the Ministry of Education and Vocational Training.

This training will be described in detail in Section 3.2.7.4.

2.3.4.2. *Higher Institute for Educational Studies and Research*

Established by the law of 6 September 1983, the Higher Institute for Educational Studies and Research (*Institut supérieur d'études et de recherches pédagogiques —*

ISERP) is a body that, in cooperation with the *Centre universitaire*, trains future teaching staff for primary and pre-school education. The three-year cycle of advanced studies leads to a certificate of teaching skills (*certificat d'aptitudes pédagogiques*).

This course will be described in detail in Section 3.2.7.5.

2.3.5. Four-year cycles of higher studies (bac + 4)

2.3.5.1. Higher Institute of Technology

The law of 21 May 1979 set up the Higher Institute of Technology (*Institut supérieur de technologie — IST*). It offers higher education leading to technical executive occupations in production, applied research and the service sector.

Traditionally, the IST used to offer a three-year course leading to the technician/engineering diploma (*diplôme d'ingénieur technicien*). In the law of 11 August 1996 reforming higher education, its terms of reference were clarified and expanded. The new course consists of a four-year cycle of education leading to a university-level engineering qualification called the industrial engineer (*ingénieur industriel*).

The procedures for moving from the old arrangement to the new are set out in a Grand Ducal regulation. Those who hold a technician/engineering diploma (*diplôme d'ingénieur technicien)*, awarded on the basis of relevant Luxembourg legislation and who also have at least five years' significant professional experience after obtaining the diploma, are authorised for a period of 15 years to have, on application, their diploma assimilated to that of an industrial engineer (*diplôme d'ingénieur industriel)*.

This course will be described in detail in Section 3.2.7.6.

2.3.6. The university cycle

2.3.6.1. University Centre

One particular feature of the educational system in the Grand Duchy was, and still is, the lack of a full cycle of university education (in other words , a course of at least four years). The only type of course organised in Luxembourg is in fact a preliminary cycle of studies, known as university courses (*cours universitaires*). This course of studies is organised at the Luxembourg University Centre (*Centre universitaire de Luxembourg — CUL*).

The University Centre (*Centre universitaire)* was set up by the law of 18 June 1969, amended by the law of 20 April 1970 on higher education and the approval of foreign titles and degrees, and the law of 11 February 1974, which laid down its statute.

In the law of 11 August 1996 on higher education, the Centre's missions were set out in greater detail and extended.

The University Centre (*Centre universitaire)* has the following departments:

- — law and economics
- — literature and humanities
- — science
- — management and computer science
- — teacher training
- — legal training.

The University Centre also hosts various seminars (economics, law, computer science, mathematics, ancient history, medieval history, contemporary history, ISIS, philosophy), as well as the American Studies Center, the *Centre d'etudes et de recherches francophones* and the *Centre de recherche public — Centre universitaire*, which are links in the chain of research in Luxembourg.

The International University Institute (*Institut universitaire international — IUIL*) offers specialist courses in the form of study sessions lasting three to four weeks or in the form of seminars. IUIL has its own legal personality and three departments:

- International Centre for Legal Studies and Comparative Law (*Centre international d'études juridiques et de droit comparé);*
- International Centre for European Studies and Research (*Centre international d'études et de recherches européennes*);
- International Centre for Political Economy (*Centre international d'économie politique*).

At the end of the academic year, the University Centre awards the following certificates to students who have successfully completed their courses:

- certificate in law and economics (*certificat d'études juridiques et économiques*);
- certificate in literature and humanities (*certificat d'études littéraires et de sciences humaines*);
- certificate in sciences (*certificat d'études scientifiques*).

Each certificate states the subjects that have been studied.

Students obtaining one of these certificates may go on to study in a second cycle in a university with which the University Centre has links under cultural bilateral agreements (in Germany, Austria, Belgium, France, the United Kingdom, etc.).

See also Section 3.2.8.

2.4. Special education

Under the amended law of 14 March 1973 setting up special education (*éducation differencié*) institutes and services, children who, because of their special mental, psycho-neurotic or sensory needs, cannot be educated in general education receive the teaching they require for their condition or situation, as part of special education.

The administration of the various institutes and centres providing such education comes under the authority of the Minister for the Disabled (*Ministre chargé des handicapés et des accidentés de la vie)*, in cooperation with the Minister for Education and Vocational Training.

The centres and institutes providing special education may be grouped according to their specific purpose:

(A) specialist institutes such as:

- the institute for the visually impaired (*institut pour déficients visuels*);
- the institute for those with cerebral or motor impairments (*institut pour infirmes moteurs cérébraux*);

- — the Mondorf medical-educational centre (*Centre médico-pédagogique de Mondorf*);
- — the institute for autistic and psychotic children (*Institut pour enfants autistiques et psychotiques*);
- — the integration centre (*Centre d'intégration*),
- — observation centres (*Centres d'observation*),
- — speech therapy centre (*Centre de logopédie*);

(B) regional special education centres set up by communes and taken over by the State, pursuant to the law of 10 January 1989;

(C) professional foundation education centres;

(D) private institutions subsidised by the State;

(E) regional consultation centres of the Children's Guidance Service (*Service de guidance de l'enfance*);

(F) outpatient rehabilitation service (*Service rééducatif ambulatoire — SREA*).

The law of 28 June 1994 on integration in schools firstly states that schooling for severely disabled children should be in specialist centres and institutes and, secondly, offers aid and support for disabled children and those with special educational needs, who are integrated into ordinary pre-school and primary school education.

2.5. Private education

The laws of 10 August 1912 on primary education and 31 May 1982 on relations between the Luxembourg State and private post-primary education lay down the conditions to be met by private schools for approval by the government.

The private schools existing in Luxembourg operate as legal entities. To be State-recognised, a private school must teach the same subjects as a public-sector school. Private schools are partly subsidised by the State. To obtain a State contribution under the law, the teaching establishment must provide teaching, which on the whole corresponds to the post-primary educational levels in the public sector, so that the education it offers can lead to public education examinations.

Table 9. **Pupils in public and private-sector education, 1991/92 to 1996/97 (in %)**

	Technical secondary education		**Secondary education**	
	Public	**Private**	**Public**	**Private**
1991/92	87.1	12.9	93.6	6.4
1992/93	86.1	13.9	93.3	6.7
1993/94	86.5	13.5	93.4	6.6
1994/95	87.1	12.9	93.2	6.8
1995/96	87.1	12.9	93.2	6.8
1996/97	87.2	12.7	92.9	7.1

SOURCE: ***MINISTRY OF EDUCATION AND VOCATIONAL TRAINING (MENFP).***

Table 10. Breakdown of pupils in different types of education, 1987/88 to 1997/98

Year		Type of education						Total
		Pre-school	Primary/ complementary	Technical secondary	Secondary	Higher (1)	Special	
1987/88	Public	7 983	24 879	12 769	7 206	1 215		54 052
	Private		500	1 574	506			2 580
	Total	7 983	25 379	14 343	7 712	1 215		56 632
1988/89	Public	7 977	24 996	12 287	7 258	1 262	960	54 740
	Private		534	1 562	475			2 571
	Total	7 977	25 530	13 849	7 733	1 262	960	57 311
1989/90	Public	7 965	26 538	11 740	7 518	1 402	987	56 150
	Private		575	1 564	486			2 625
	Total	7 965	27 113	13 304	8 004	1 402	987	58 775
1990/91	Public	8 354	26 612	11 341	7 589	1 463	1 019	56 378
	Private		633	1 599	509			2 741
	Total	8 354	27 245	12 940	8 098	1 463	1 019	59 119
1991/92	Public	8 689	26 197	10 800	7 882	1 533	1 179	56 280
	Private			1 597	538			2 135
	Total	8 689	26 197	12 397	8 450	1 533	1 179	58 445
1992/93	Public			11 347	8 125	1 406	1 132	22 010
	Private			1 836	381			2 217
	Total			13 183	8 712	1 406	1 132	24 433
1993/94	Public	9 408	27 595	12 243	8 392	1 510	1 159	60 307
	Private		610	1 910	593			3 113
	Total	9 408	28 205	14 153	8 985	1 510	1 159	63 420
1994/95 (2)	Public	10 398	26 867	14 420	8 402	1 627	1 223	62 937
	Private		215	2 175	610			3 000
	Total	10 398	27 082	16 595	9 012	1 627	1 223	65 937
1995/96	Public	9 882	27 640	15 788	8 712	2 040	1 153	65 215
	Private			2 341	641			2 982
	Total	9 882	27 640	18 129	9 353	2 040		67 044
1996/97	Public	9 932	28 232	16 591	8 795	2 470		66 020
	Private			2 429	668			3 097
	Total	9 932	28 232	19 020	9 463	2 470		69 117
1997/98	Public	10 192	28 862	17 527	8 902	2 174		67 657
	Private			2 512	651			3 163
	Total	10 192	28 862	20 039	9 553	2 174		70 820

(1) Higher education; IST; CUL; ISERP; IEES (see Annex 1 and Section 2.3).

(2) From 1994/95, pupils who formerly used to attend complementary education (*enseignement complémentaire*) were integrated into school education in the technical education preparatory system.

BEST COPY AVAILABLE

2.6. The structure of the secondary school population

2.6.1. Trends in the school population

Following a plateau of about 21 000 pupils in the period between 1986 and 1992, the numbers of pupils in post-primary education have been rising steeply since the 1992/93 school year, going from 110 % (23 138) in 1993/94 to 130 % (27 482) in 1995/96.

The sizeable increases in the 1994/95 and 1995/96 school years were partly due to the integration of about 2 000 pupils in the preparatory arrangement in 1994/95 and the integration of about 400 pupils in education for healthcare occupations in 1995/96.

Table 11. **Breakdown of school population, by gender and type of education, 1991/92 to 1996/97 (in %)**

Year	Technical secondary education		Secondary education	
	Male	**Female**	**Male**	**Female**
1991/92	53.4	46.6	46.4	53.6
1992/93	52.9	47.1	45.9	54.1
1993/94	53.0	47.0	45.6	54.4
1994/95	53.5	46.5	46.0	54.0
1995/96	52.7	47.3	45.4	54.6
1996/97	52.4	47.6	45.2	54.8

SOURCE: ***MINISTRY OF EDUCATION AND VOCATIONAL TRAINING.***

Table 12. **Breakdown of foreign pupils by type of education, 1973/74 to 1996/97**

	Technical secondary education				Secondary education			
Year	Total	Luxembourgers	Foreigners number	Foreigners as % of total	Total	Luxembourgers	Foreigners number	Foreigners as % of total
1973/74	12 307	10 370	1 937	15.7	8 214	7 635	579	7.1
1976/77	14 455	11 880	2 575	17.8	8 271	7 621	650	7.9
1979/80	15 769	12 596	3 173	20.1	8 801	7 979	822	9.3
1982/83	16 016	12 147	3 869	24.2	9 120	8 135	985	10.8
1985/86	15 562	11 512	4 050	26.0	7 951	6 952	999	12.6
1988/89	13 849	9 902	3 947	28.5	7 733	6 769	964	12.5
1991/92	12 397	8 429	3 968	32.0	8 420	7 438	982	11.7
1992/93	13 183	8 968	4 215	32.0	8 712	7 746	966	11.1
1993/94	14 153	9 524	4 629	32.7	8 985	7 965	1 020	11.4
1994/95	16 595	10 688	5 907	25.6	9 012	7 959	1 053	11.7
1995/96	18 129	11 557	6 572	36.3	9 353	8 219	1 134	12.1
1996/97	19 020	12 115	6 905	36.3	9 463	8 318	1 145	12.1

SOURCE: ***MINISTRY OF EDUCATION AND VOCATIONAL TRAINING.***

Table 12 illustrates one of the specific features of Luxembourg: its migratory movements (see Chapter 1.2). Immigration has played a vital role in the economic

BEST COPY AVAILABLE

development of Luxembourg for a century, and the number of migrants has been growing rapidly over the past few years — 26.3 % in 1981; 29.4 % in 1991 and 34.2 % in 1997.

As a result:

— immigration has become an integral part of Luxembourg society;

— the proportion of foreign pupils in technical secondary education reflects the proportion of foreigners in the resident population, and the same applies to primary education;

— the percentage of foreign pupils in general secondary education is still considerably lower than the proportion of foreigners in the resident population.

2.6.2. Future trends in the school population

As regards movements in the numbers of pupils in the years to come, there are two vital factors: the number of births and the migratory balance.

The projection below is based on the following:

— only the age groups between 12 and 20 are taken into account (= 9 yearly intakes);

— the migratory balance has fluctuated over the past 10 years from 16 % to 21 % of the total;

— the birth rate has been stable over the past few years.

The projections are that by the year 2005 the numbers in the age groups concerned will be 17 % higher (48 201 pupils) and by 2010 they will be 31 % higher (54 368 pupils) than in 1997 (41 294 pupils).

This increase in the school population will be almost entirely in the State sector, since private schools cannot increase the numbers they can cater for. This follows from the fact that, pursuant to the law of 31 May 1982 concerning relations between the State and private education, no subsidies are granted for the setting up of infrastructure.

Over the past few years, it has been evident that the social demand for education has been increasing steadily. The percentage of young people taking a five-year course of training such as that leading to the technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnel)* (see Section 3.2.5.2) or the manual proficiency certificate (*certificat de capacité manuelle)* (see Section 3.2.5.4) in technical education has continuously declined, whereas there has been a growth in the seven-year courses of studies, such as the diploma of completion of technical secondary education (*diplôme de fin d'études secondaire technique*) and technician's diploma (*diplôme de la formation de technicien*).

Furthermore, comparing the global rates of school attendance (5) broken down by nationality, as recorded during the 1991 census, with those of the Labour Force Survey in 1996, there has been an expansion of school attendance during the first half of the 1990s.

---

(5) Percentage of numbers in post-primary education.

Chapter 3
The vocational education and training system

3.1. History of vocational education and training

3.1.1. Law of 5 January 1929 on apprenticeship and its amendment in 1945

Historically, the basis for legislation on technical and vocational secondary education was the emergence of a range of schools:

— agricultural (law of 23 February 1884),
— crafts (*École d'artisans* created by the law of 14 March 1896, converted into the *École des arts et métiers* in 1958),
— vocational, the Esch-sur-Alzette vocational school (*École professionnelle d'Esch-sur-Alzette*), which was given a legal base by the law of 18 July 1924,

and the regulation of apprenticeship by the law of 5 January 1929.

The vocational schools (*écoles professionnelles*) and vocational education centres (*centres d'enseignement professionnel*) were set up progressively to provide part-time school education for apprentices, which was made compulsory by the law of 5 January 1929 on apprenticeship.

The legal base for initial vocational training was thus first laid down by the law of 5 January 1929 and then amended by the Grand Ducal decree-law of 8 October 1945.

As of the present time, this decree-law is the basic legislation governing apprenticeship. It sets out the terms of reference for chambers of trade and commerce on the subject of apprenticeship, and covers apprenticeship contracts, the supervision of apprenticeship and the examination taken at the end of apprenticeship.

3.1.2. Establishment of general vocational education

The law of 1 December 1953 setting up general vocational education stipulated that vocational education leading to vocational aptitude examinations would be provided for apprentices for craft trades, commerce and industry, either at the State vocational school (*École professionnelle de l'État*) at Esch-sur-Alzette or in vocational education centres (*centres d'enseignement professionnel).*

3.1.3. Establishment of middle level education

The law of 16 August 1965, repealed by the law of 21 May 1979, established middle level education (*enseignement moyen)* for boys and girls. The five-year general course it provided led to employment in a lower and middle-ranking career in public administration and the private sector.

3.1.4. Establishment of technical secondary education

For the first time, the law of 21 May 1979 consolidated all the existing legislation on initial vocational training and created technical secondary education (*enseignement secondaire technique*). It covered:

— the organisation of vocational training and technical secondary education;
— the organisation of continuing vocational training.

The law of 1979 has the great merit of coordinating and rationalising the technical education system. With standardisation (an observation and guidance cycle of education, a middle level cycle with a vocational or a technical option and an advanced cycle with administrative divisions, general technical education and training for technicians), technical secondary education acquired a uniformity of structure that it had previously lacked. This standardisation, combined with the equivalence of diplomas from the different paths of technical secondary education, has facilitated the transition from one type of training to another and has removed the partitions that had often existed between different school establishments.

In the field of vocational training, the law of 1979 also reinforced consultation between the world of the school and the vocational chambers (*chambres professionnelles*). Lastly, it 'de-vocationalised' the first three years of technical secondary education and offered pupils a broader general education.

3.1.5. Adaptation of vocational training and technical secondary education

The law of 30 May 1984 was the first adaptation of the law of 21 May 1979 regulating vocational training and technical secondary education. The structure of technical secondary education was made far more flexible. For example, the law introduced the option of changing, in cases of need, the average duration of vocational training, which had been set at three years.

Whereas the law of 1979 organised apprenticeship as an alternance training arrangement, the law of 1984 provided that, if there were too few apprenticeship places, the full training could be imparted at school, given the persistent demand for skilled personnel in a specialist field.

The law of 1984 also broadened access to training leading to the manual proficiency certificate (*certificat de capacité manuelle — CCM*).

3.1.6. Reform of secondary education

From 1991 to 1995, the reform of secondary education (law of 22 June 1989) consolidated this form of education, in particular in structure, content and scholastic assessment.

- In terms of structures, general education was extended and intensified in the fourth and third classes, and more advanced specialisation is now provided in the second and first classes. A system of options permitting greater diversification of school provision was established to complete this modification of structures.
- In terms of content, national curricula planning committees, in liaison with the Ministry of Education and Vocational Training's service for the coordination of research and educational innovation and technology (*Service de la coordination de la recherche et de l'innovation pédagogique et technologique* — Script), formulated new curricula and conducted searching discussions on teaching content and methods.
- In terms of scholastic assessment, new criteria for promotion from one year to the next were introduced and evaluated. Henceforth, if one or two sets of marks were slightly below par, they could be offset if a pupil's general average marks were 35 or more out of 60. The marks achieved during the year were taken into account, and oral tests were introduced into the examination taken on the completion of secondary education.

3.1.7. Reform of technical secondary education and continuing vocational training

The reform of technical secondary education has been conducted progressively since the publication of the law of 4 September 1990. The introduction of the preparatory system (see Section 3.2.3) was one of the main planks of this reform. The law of 3 June 1994 creating the system of preparation for technical secondary education is one of the Ministry of Education and Vocational Training's priorities. At the time of writing, evaluation of the effects of the preparatory system on the vocational qualifications of young people had not yet been finalised.

The Ministry of Education and Vocational Training has also devoted its efforts to setting up new forms of training. The curricula of the various divisions, sections and branches of technical secondary education have been restructured and rationalised. The main aim was to bring courses in electronics, mechanical engineering and commercial subjects into line with the technologies being developed and the skills demanded of future personnel in key areas. New assessment procedures based on this action were also introduced.

Lastly, a two-tier form of apprenticeship (*apprentissage à deux degrés*) was organised, starting as a pilot project in 1993. The first tier, normally lasting for two years, provides a basic vocational qualification, in the form of a preliminary technical and vocational certificate (*certificat d'initiation technique et professionnelle — CITP*). This apprenticeship arrangement is conducted in five technical secondary schools (*lycées techniques*). For some pupils, this is a measure to help them enter the working world, whereas for deserving pupils the CITP is a new pathway to obtaining the technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnelle — CATP*).

3.1.8. Establishment of a preparatory course for technical secondary education

Complementary education (*enseignement complémentaire*), formerly the lowest level of the three systems in post-primary education in the Grand Duchy of Luxembourg, had become a dead-end offering few vocational opportunities to pupils in this form of education until it was reformed (law of 3 June 1994). Only those pupils who managed to move to technical secondary school had any real prospect of continuing in schooling and obtaining a CITP or a CCM. It therefore seemed logical to integrate complementary education into the technical secondary system in the form of a preparatory course.

3.1.9. Reorganisation of education for healthcare professionals

Under the law of 11 January 1995 reorganising public colleges for nurses, education for the health professions was transferred from the Ministry of Health to the Ministry of Education and Vocational Training. The new form of training was integrated into the technical branch of technical secondary education. The vocational branch of this form of education takes place in the advanced cycle of the technical system, normally a three-year course. The studies lead to State diplomas for the health professions (State nursing diploma (*diplôme d'État d'infirmier*), State diploma in medical technical care (*diplôme d'État d'assistance technique médicale)*), which are comparable to the diploma of completion of technical secondary education (*diplôme de fin d'études secondaires techniques*).

3.1.10. Reform of master craftsmanship

The law of 11 July 1996, organising a course leading to the master craftsman's diploma (*brevet de maîtrise)* and laying down conditions for obtaining the title and the *brevet,* with effect from the 1997/98 examination session, regulated the master craftsmanship system. It replaced the law of 3 July 1935 regulating the conditions for obtaining the title of master craftsman (*maîtrise*) and the master craftsman's diploma (*brevet de maîtrise*) for trades. Like the law of 1935, the new law restricts vocational training leading to the master craftsman's diploma (*brevet de maîtrise*) to the craft trades sector. This diploma confers the right to set up on one's own in a main craft area as well as the right to train apprentices.

3.1.11. Reform of higher education

Higher education is provided in the University Centre (*Centre universitaire),* the Higher Institute of Technology (*Institut supérieur de technologie — IST*), the Higher Institute for Educational Studies and Research (*Institut supérieur d'études et de recherches pédagogiques — ISERP*) and the Institute for Educational and Social Studies (*Institut d'études éducatives et sociales — IEES*). The law of 11 August 1996 reforming higher education defined the first cycle of training for the University Centre. It also authorised the University Centre to organise third-cycle programmes and specialist courses and to participate in continuing training.

3.1.12. Role of the social partners in initial vocational training

The vocational chambers (*chambres professionnelles*) were set up by the law of 4 April 1924. These have the status of a public sector establishment, are legal persons governed by civil law, enjoy financial autonomy and come under the supervision of the competent minister.

Luxembourg has six such chambers: three of which can be said to represent employers; and three, employees.

The vocational chambers (*chambres professionnelles)* defined as representing the employers are the Chamber of Commerce (*Chambre de commerce),* the Chamber of Trades (*Chambre des métiers)* and the Chamber of Agriculture (*Chambre de l'agriculture)*.

The chambers defined as representing the employees are the Chamber of Private Employees (*Chambre des employés privés*), the Chamber of Work (*Chambre de travail*) and the Chamber of Civil Servants and Public Employees (*Chambre des fonctionnaires et employés publics*).

These chambers have very broad terms of reference. Their primary mission is advisory. They produce opinions on the draft laws that the government is obliged to submit to the chambers before they are tabled in the Chamber of Deputies.

They represent their members on State advisory bodies and also in international organisations. They keep their members informed and may give them professional, social, economic or legal advice.

Lastly, the vocational chambers are involved in initial training, especially for all types of education preparing young people for an occupation. They now have even greater responsibility for apprenticeship arrangements. In addition, there is legislation permitting them to conduct continuing training on their own account (see also Section 3.3.3.1).

Figure 2. **Development of the Luxembourg vocational training system**

Year	Laws and regulations
1884	Law of 23 February establishing agricultural education
1885 ↓ 1895	
1896	Law of 14 March establishing the crafts school
1897 ↓ 1923	
1924	Law of 4 April establishing vocational chambers Law of 18 July establishing the Esch-sur-Alzette vocational school
1925 ↓ 1928	
1929	Law of 5 January organising apprenticeship
1930 ↓ 1934	
1935	Law of 3 July regulating the conditions for obtaining the title of master craftsman and the master craftsman's diploma
1936 ↓ 1944	
1945	Decree-law of 8 October amending the law on apprenticeship
1946 ↓ 1952	
1953	Law of 1 December establishing generalised vocational education
1954 ↓ 1957	
1958	Law of 3 August establishing the Institute of Technical Education (*Institut d'enseignement technique*), which consists of the School of Arts and Crafts (*École des arts et métiers*) and the Technical School (*École technique*)
1959 ↓ 1964	
1965	Law of 16 August establishing middle level education
1966 ↓ 1978	
1979	Law of 21 May establishing technical secondary education
1980 ↓ 1982	
1983	Law of 6 September establishing the Higher Institute for Educational Studies and Research (*Institut supérieur d'études et de recherches pédagogiques*)
1984	Law of 30 May amending the law on technical secondary education
1985 ↓ 1986	
1987	Law of 1 April establishing the Centre of Psychology and School Guidance (*Centre de psychologie et d'orientation scolaire*)
1988	
1989	
1990	Law of 6 August establishing the Institute for Educational and Social Studies (*Institut d'études educatives et sociales*) Law of 4 September reforming technical secondary education
1991 ↓ 1993	
1994	Law of 3 June establishing the preparatory course for technical secondary education
1995	Law of 11 January reorganising public sector nursing schools Law of 31 July on employment and training
1996	Law of 11 July organising a course leading to the master craftsman's diploma and laying down the conditions for obtaining the diploma and the title of master craftsman Law of 11 August reforming higher education Decree of 16 November setting up a tripartite advisory committee on vocational training

BEST COPY AVAILABLE

3.2. Initial vocational education and training

3.2.1. Preliminary comment on technical secondary education

For most pupils in technical secondary education this is not a deliberate career choice, but tends to be the result of difficulties in keeping up with secondary education, of which the goal is to prepare young people for university studies.

Secondary education is provided in secondary schools (*lycées*) and technical secondary education in technical secondary schools (*lycées techniques*). A number of school establishments act both as a secondary school and as a technical secondary education, with the aim of facilitating the local guidance of pupils within a single school establishment.

Pupils may go directly to technical secondary education following primary education or be redirected towards this form of education after experiencing setbacks in secondary education. The new procedure for guidance after primary education has the aim of preventing as far as possible pupils having to change direction due to educational failure.

Technical secondary education provides pupils, during the first three years of study and up to the end of compulsory schooling, with most of their general education, but it also allows them to discover a range of vocational courses.

Since the school population is very varied on leaving primary education, schooling in the first cycle of technical secondary education brings together classes from the preparatory education stream and classes from technical secondary education and divides them into different streams.

3.2.2. Legal framework and organisation of studies

The organisation of technical secondary education is based on the law of 4 September 1990.

Technical secondary education caters for pupils from the age of 12. The duration of the full school cycle depends on the branch and the vocations or trades chosen. It is structured as three cycles, and within each cycle the pupils opt for one of the arrangements proposed:

(1) a first cycle lasting three years, which starts after the sixth year of primary education;

(2) a middle cycle, which consists of:

- a vocational option, normally lasting three years,
- a technician training option, normally lasting two years,
- a technical option, normally lasting two years;

(3) an advanced cycle, which consists of:

- a technician training option, normally lasting two years,
- a technical option, normally lasting two years.

3.2.3. Preparation for technical secondary education

Since not all pupils coming out of primary education have achieved the level of competence enabling them to go directly to the first class in the first cycle, the law of 3 June 1994 set up an option of preparing for technical secondary education.

This preparatory stream is designed to enable such pupils to:

— transfer to the lower or middle cycle vocational option, in technical secondary education;
— go straight to working life.

These goals call for the implementation of different types of teaching models, geared to the target group of pupils and based on specific teaching methods and a special approach.

The development of these new teaching and evaluation methods is based on the consideration that, despite their considerable differences, all pupils in this type of schooling have one factor in common: a negative experience of schooling, characterised by a number of setbacks. The recommended methods, therefore, must take this factor into account and must above all prevent demotivation, discouragement and alienation from schooling. To this end, the teaching practices are based on personalised teaching (¹).

This individualised approach has, in practice, been achieved by the modular education of groups at a given level, with each pupil progressing at his/her own pace. A modular system of this kind calls for the setting of goals and for determining threshold levels, establishing the point at which the goals are achieved. Unlike objectives stated in terms of study curricula for a given school year, objectives in the modular system are goals set for each module, which are more readily assimilated by the learner and can be achieved in a shorter time.

The duration of studies is not set in advance. Achievements are recorded in a certificate and young people can supplement their training at any time, even after they have left school. It is also possible for young people who have completed their school education in a class under the old system to return to school.

Three levels of certification are defined for preparatory education:

(1) certification giving the right of access to the middle cycle of technical secondary education, in a vocational stream;
(2) certification giving the right of access to the CITP (see Section 3.2.5.3);
(3) certification of completion of compulsory school education.

Another important aim of this reform is to set up or reinforce the social, psychological and teaching support given outside school hours.

The preparatory system caters for a majority of foreign pupils, who may have just arrived in the country or have come from primary education, but are without sufficient knowledge to go directly to the first cycle of technical secondary education. Various languages are used as the basis for education, although most classes are in French.

(¹) 'A learner-centred teaching method, taking account of these characteristics, especially the pupil's background and record, based on the optimum use of new forms of knowledge and expertise and allowing pupils to take different routes in the course of their school career. This is based on goal-oriented teaching methods'. National Report, Paul Dickes, CEPS, December 1996.

BEST COPY AVAILABLE

3.2.4. Organisation of different cycles of technical secondary education

3.2.4.1. The lower cycle of technical secondary education

The objective of the lower cycle (*cycle inférieur*) is threefold:

- to extend and deepen basic knowledge;
- to guide pupils towards the next cycle and prepare them for studies in one of the various intermediate cycle options;
- to facilitate the transition to working life.

The lower cycle covers three years of study:

- the (class 7) 'observation' class gives pupils a basic multidisciplinary education and extends the knowledge they have already acquired;
- the (class 8) 'assessment and guidance' class continues with the basic multidisciplinary education and guides pupils in their choice of future school and vocational options;
- the (class 9) 'pre-specialisation' year prepares pupils for access to apprenticeship or for continuing their studies in the various branches and divisions of the intermediate cycle.

The lower cycle curriculum consists essentially of general educational subjects and includes the following:

- languages
- mathematics
- natural sciences
- human sciences
- technology
- the arts
- music
- physical education and sport
- religious instruction and moral and civic education.

The curriculum also includes practical and manual work to guide pupils in their choice of options, as well as activities promoting the transition to working life.

In the eighth guidance (*orientation*) and ninth pre-specialisation (*détermination*) years, tuition is organised on flexible lines, with various branches, curricula, levels of education and teaching methods. The number of lessons per week in each branch as well as the promotion criteria may differ.

Special tuition may be arranged to promote pupils' mobility between branches and levels.

3.2.4.2. The intermediate cycle of technical secondary education

The purpose of the intermediate cycle (*cycle moyen*) is to teach a trade or occupation and prepare students for the advanced cycle. The intermediate cycle consists of two or three years, in other words the 10th and 11th school years, and — depending on the option chosen — the 12th year, in which the emphasis is on practical work and which leads to an examination taken on completion of apprenticeship — the technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnelle — CATP*).

The intermediate cycle at present consists of three branches:

— the vocational branch *(régime professionnel)*;

— the technician training branch *(régime de la formation de technicien)*;

— the technical option *(régime technique)*.

The **vocational branch** is essentially one of apprenticeship (see also Section 3.2.5). It entails practical training in a workplace under an apprenticeship contract and attendance at vocational courses in a technical secondary school (*lycée technique)*, subject to the measures regulating the mixed stream and the full-time schooling stream (Article 8 of the law of 4 September 1990).

The vocational branch has the following apprenticeship divisions:

— agricultural

— craft

— commercial

— hotel and tourist trade

— industrial

— household

— paramedical and social.

The vocational branch offers the simplest and most direct access to a vocational qualification, the technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnelle — CATP*) or, where appropriate, the preliminary technical and vocational certificate (*certificat d'initiation technique et professionnelle — CITP*) or the manual proficiency certificate (*certificat de capacité manuelle — CCM*). The conduct of vocational training depends on the occupation itself. A number of apprenticeships consist of three years' practical training combined with theory provided by a technical secondary school (*lycée technique)*. The duration of the courses in the secondary school (*lycée)* is set at a minimum of eight hours a week. In the case of other occupations (such as administrative and commercial employees, joiners, car mechanics, horticulturists and farm workers), the option is a mixed one: the apprentice attends full-time vocational classes in a technical secondary school for one or two years to learn the theory. He/she then has practical training in a workplace for a period of one year and at the same time takes theoretical courses in the school.

For a small number of occupations, the whole of the three-year period of training takes place in the school.

Vocational studies lead to an examination organised at national level, occurring at the end of the final year. Successful candidates are awarded a technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnelle — CATP*).

The **technician training option** in the intermediate cycle is a full-time option, essentially preparing pupils for studies as a technician in the advanced cycle. Training for technicians in the intermediate cycle is provided in classes 10 and 11.

BEST COPY AVAILABLE

The technician training option consists of the following sections:

- administration and commerce
- agriculture
- arts
- chemistry
- electrotechnology
- civil engineering
- hotel and tourist trade
- computer science
- mechanical engineering.

The **technical branch** in the intermediate cycle is a full-time option, leading to the *baccalauréat technique*. This intermediate cycle branch covers two years, in other words classes 10 and 11.

This branch consists of the following sections:

- administrative and commercial
- paramedical and social
- general technical.

The curricula for intermediate cycle classes consist of:

- general subjects (religious instruction — ethics, English, French, a third language, mathematics, chemistry, physics, general knowledge of the contemporary world, physical education);
- scientific and technical subjects (which vary depending on the section chosen);
- practical subjects (which vary depending on the section chosen).

3.2.4.3. The advanced cycle of technical secondary education

The advanced cycle *(cycle supérieur)* of full-time education lasts for two years (classes 12 and 13) and consists of two options: the technician training and the technical branch.

In the advanced cycle, the technical and the technician training branches are identical to those in the intermediate cycle.

The advanced cycle leads, on completion of studies, to an examination organised nationally. Those who pass the examination receive either a technical secondary school-leaving certificate or a technician's diploma specifying the section, any subsection and the specialist subjects in which the examinees have been tested and stating that they possess the requisite knowledge to go on to higher education.

The curricula for classes in the advanced cycle include the following subjects:

(a) Technical option (*régime technique*)

(1) for the administrative and commercial section:

- general subjects (German, English, French, the contemporary world),
- science and economic subjects (including mathematics, computer science, accounting, economics and law),

- physical education,
- an optional subject (religious instruction/ethics);

(2) for the general technical education section:

- general subjects (German, English, French, the contemporary world),
- scientific subjects (mathematics, computer science, physics, chemistry, general mechanical engineering, electricity),
- a technological and practical subject,
- physical education,
- an optional subject (religious instruction/ethics);

(3) for the health and social occupations section:

- general subjects (German, English, French, knowledge of the contemporary world),
- scientific subjects (including mathematics, computer science, physics and chemistry),
- a clinical subject,
- physical education.

(b) Technician training (*régime de la formation de technicien*), for all sections combined:

- general subjects (German, English, French, mathematics, civic and social education, health and environment, physical education),
- a science and technological subject (varies depending on the section chosen),
- a practical subject (varies depending on the section chosen).

Table 13: **Breakdown of pupils, by technical secondary education branches, 1992/93 to 1996/97**

Year	Lower cycle		Technical branch		Technician branch		Vocational branch				Total	
							Full time		Alternance			
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1992/93	6 263	47.5	2 968	22.5	528	4.0	1 482	11.2	1 942	14.7	13 183	100
1993/94	6 546	46.3	2 784	19.7	1 338	9.5	1 341	9.5	2 144	15.1	14 153	100
1994/95	9 078	53.7	2 668	15.8	1 637	9.7	1 312	7.8	2 219	13.1	16 914	100
1995/96	9 666	53.3	3 266	18.0	1 871	10.3	1 318	7.3	2 008	11.1	18 129	100
1996/97	9 798	51.5	3 623	19.0	2 143	11.3	1 358	7.1	2 098	11.0	19 020	100

NB: The percentages are based on the total number of pupils in technical secondary education during the year in question.
Since 1994/95, the preparatory branch has been integrated into the technical secondary education.
Since 1995/96, the technical secondary schools (*lycées techniques*) for the health professions have been integrated into the technical branch in technical secondary education.

SOURCE: *MINISTRY OF EDUCATION AND VOCATIONAL TRAINING, LEVY 1997.*

BEST COPY AVAILABLE

3.2.4.4. Progression criteria

3.2.4.4.1. The progression system

Except in the case of pupils in class 13 of the advanced cycle (19 years old) and class 12, essentially a practical class in the intermediate cycle, the class council decides, at the end of the school year, whether pupils in the class in all branches covered by the curriculum should go on to the next higher grade.

Decisions on advancement are based on the pupil's record throughout the school year. The assessment takes account of the following factors:

— marks in the relevant branches,
— the sum of coefficients of poor marks,
— a weighted annual average.

This progression system (*système de promotion*), based on the regulation of 8 February 1991, encourages pupils to fill in the gaps in their knowledge rather than to give up studying. The opportunity to compensate for poor marks is the rule in all three cycles. Under certain conditions, the pupils may offset one or more sets of weak marks.

The aim in technical secondary education is firstly, to prepare pupils for working life and, secondly, to enable them to continue their studies at higher and university level. The progression system takes account of this by allocating a factor of 1 to 4 to each branch, depending on the importance attached to it in training.

In the lower cycle of technical secondary education, pupils are promoted to educational streams that are graduated according to the level of difficulty. In ascending order of difficulty, these are the modular, practical, multidisciplinary and theoretical streams.

A pupil may be transferred either within the same educational stream or to a more demanding educational stream, or alternatively to a less-demanding stream.

At the time of their introduction in 1991, the progression criteria were seen as a major innovation in Luxembourg education. Pupils quickly learned to take advantage of the system, although they were reluctant to be redirected towards a less demanding educational stream. The number of pupils repeating years in the first cycle did not decrease, because pupils and their parents were unwilling to accept a change in the stream of education. The average age of pupils in the first cycle has therefore risen steadily.

Under a Grand Ducal regulation of 23 September 1996, changes were made to the assessment and progression of pupils in the first cycle, as well as to the conditions for admission to classes in different options in the intermediate cycle. This new regulation introduced another type of assessment, besides the evaluation of knowledge through class work, homework and tests.

The evaluation is of attitudes to work as expressed in the regularity of homework, cooperation in work in the classroom, the pupil's progress by comparison with his or her initial standard and the care taken with the correction of work. In each branch the assessment is summarised in an overall rating for each term, which may be A (good/very good); B (satisfactory); C (unsatisfactory/very unsatisfactory). At the end of the year a general summary is produced for each pupil.

This general summary consists of a mark of 6 to 0 points, awarded by the class council in the light of the summaries for each term. The class council may decide to deduct part or all of the points in the term rating and add it to the annual rating for a given branch. This means that a pupil with a good general attitude may make up for occasional weaknesses in a given branch.

In taking its decision, a class council considers the following questions:

- Would the pupil's knowledge and attitude to work enable him/her to move up successfully to education in a more demanding stream? If so, the pupil is authorised to move on to that stream.
- Would the pupil's knowledge and attitude to work enable him/her to continue successfully in the same stream? If so, the pupil is authorised to continue in the same educational stream.
- If this is not the case, would the pupil be able to remedy the gaps in his/her knowledge before the next school year starts? If so, the class council requires the pupil to do holiday work. If not, the class council transfers the pupil to a less-demanding educational stream.

To ensure that pupils and apprentices in the intermediate cycle vocational stream classes can also benefit from the principle of compensation, the progression criteria laid down by the Grand Ducal regulation of 22 February 1984 determining the method of operation of classes in the intermediate cycle, vocational stream, were amended. According to the criteria applied, pupils and apprentices taking this option may have a right to compensation either in two branches (one of them being general theory and one vocational theory), or in three branches (one being general training and two of vocational theory).

3.2.4.4.2. The transfer from one cycle to another

Transfer from the lower cycle to the intermediate cycle is a crucial point in the school career of every pupil in technical secondary education. This transfer entails a choice of whether to take up apprenticeship for a given trade, to train as a technician or to make a commitment to work for a technical baccalauréate.

The transfer from the lower cycle to the intermediate cycle is based on the results obtained in one of the streams of education. It is not just a matter of obtaining a pass mark; pupils' performance is expected to be above average.

- Pupils in theoretical education, 9th class, with a score of over 40 out of 60 can continue in the technical option, as can those who, failing that, have achieved annual marks of over 40 in specific branches of the training they hope to pursue.
- Pupils who have succeeded in theoretical and multidisciplinary education 9th class, with a mark of over 40 out of 60, may go on to the technician training option, as can those who have achieved annual scores of over 40 out of 60 in the specific branches of the type of education they wish to pursue.
- Pupils who have successfully completed theoretical or multidisciplinary 9th class may go on to the vocational option. In the case of pupils in 9th class, practical side, admission to a number of sections is subject to obtaining marks of over 40 out of 60 or, if they fail to do so, annual marks exceeding 40 out of 60 in the specific branches for the type of education they wish to pursue.
- Pupils in the modular stream who have succeeded in all modules may be admitted to any section in the vocational option except those sections preparing pupils for

highly technical occupations. These sections are determined in consultation with the competent chambers by ministerial decree.

Decisions on advancement are backed by a guidance opinion given by the class council, which first consults the psychological and school guidance service for its views.

A class in the first cycle can be repeated only once during the three years of education, and this must be at the parents' request.

3.2.5. Apprenticeship

3.2.5.1. Conditions of admission

Any person wishing to learn a trade under an apprenticeship contract must first apply to the employment authority's Department of Vocational Guidance (*Service de l'orientation professionnelle de l'administration de l'emploi — ADEM*) (see Section 5.3.4), which will advise him/her on the choice of occupation and suggest a number of enterprises providing training. The apprenticeship contract is authorised and recorded by the employers' chamber, which is competent for that trade and authorises an employer to train apprentices. During the period of apprenticeship, the training enterprise pays the apprentice an allowance, the amount of which is set by the Ministry of Education and Vocational Training.

Apprenticeship as conceived in Luxembourg is an alternance training system comparable to the German 'dual system'. This is the traditional route for vocational training.

3.2.5.2. Technical and vocational proficiency certificate

The vocational branch (see also Section 3.2.4.2) curriculum must include some general education and some theoretical and practical education relevant to the occupation.

Apprenticeship is organised by the chambers concerned jointly with the Ministry of Education and Vocational Training. The vocational branch at present consists of three streams of training:

(1) the alternance option normally consists of three-year courses following the technical secondary 9th class (theoretical training in the school and practical training in the workplace, e.g. 8 hours of lessons in the school and 32 hours of training in the workplace);

(2) the mixed option consists, after 9th class, of either a full-time class normally followed by two alternance course classes, or two full-time classes normally followed by one alternance class;

(3) a full-time option, normally lasting three years following 9th class.

Apprenticeship is for the following sectors:

- agriculture, which has sections for horticulture, forestry and the environment, agriculture and agricultural machinery mechanics;
- crafts, which has sections for electricians, car electricians, car mechanics, heating installers, plumbers, locksmiths, building trades, tinsmiths, clothing trade workers,

hairdressers, bakers/confectioners, butchers and sausage-makers, caterers, ceramists and potters, opticians, panel beaters, car bodywork mechanics and car body painters;

- commerce, which has sections for sales, office work and travel agencies;
- hotel and tourist trades, which has sections for restaurant waiters and waitresses, chefs and restaurant and hotel/restaurant operators;
- industrial, which includes sections for machine mechanics, industrial and maintenance mechanics, draughtsmen for the building industry, electronics engineers for communications and for energy;
- domestic economy, which has only one full-time section, i.e. the household economy section;
- paramedical and social work, which has a section for healthcare support workers.

Those passing the practical examination obtain the technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnelle — CATP*), a diploma awarded jointly by the vocational chambers and the Ministry of Education and Vocational Training.

The CATP is a final diploma. It should be pointed out, however, that holders are eligible to go on to a 12th class in the advanced cycle of technician training and may also continue their studies leading to the master craftsman's diploma (*brevet de maîtrise*) in their specialist field (see Section 3.2.6).

3.2.5.3. Preliminary technical and vocational certificate

The reform of technical secondary education took account of the fact that some pupils have the ability to learn the practical side of a trade, but are incapable of assimilating theoretical subjects at the same pace. For these pupils, a two-tier type of training is available, known as 'two-stage apprenticeship'.

The first stage is for a period ranging from two to four years. In principal, it is understood that the apprentice has entered into an apprenticeship contract with an employer. At the same time he learns the theory in the secondary school (*lycée*) at his own pace, which means that he can concentrate on a varying number of theoretical subjects, depending on his ability to assimilate the knowledge. This modular system means that after a certain time he can acquire the theoretical side of the certificate, known as the preliminary technical and vocational certificate (*certificat d'initiation technique et professionnelle — CITP*). To obtain the practical part, he sits an additional examination.

The CITP corresponds to a basic training course. After it has been acquired, apprentices must nevertheless be encouraged to embark on the second stage and, after that, to acquire the CATP. To do this, they may enter into a normal apprenticeship contract. They may also be recruited by an enterprise on the strength of their certificate and attend courses on theory provided as part of adult training.

3.2.5.4. Manual proficiency certificate

Training leading to the manual proficiency certificate (*certificat de capacité manuelle — CCM*) is organised for pupils whose results prior to entering or during their apprenticeship show that the goals of the vocational training system cannot be achieved within the periods required by the law or its implementing measures.

Training is organised as an alternance stream. It is based on the same number of years as those leading to the CATP in the respective occupations and trades.

The curriculum leading to the CCM consists of:

— practical apprenticeship in the employer's workplace;
— practical apprenticeship in the school workshop;
— a job-related theoretical subject.

The programme of practical apprenticeship is the same as for the vocational option for the corresponding trade or occupation. The curriculum of vocational theory for the pupils is less demanding.

The list of trades and occupations for which an apprenticeship can be organised with a view to obtaining the CCM is determined by a Grand Ducal regulation.

Table 14: **Numbers of pupils enrolled in alternance classes (*), 1977/78 to 1997/98**

Year	Numbers CATP + CITP + CCM	Percentage of the post-primary school education population
1977/78	3 105	14.7
1980/81	3 634	16.2
1983/84	3 519	15.8
1986/87	2 759	13.7
1990/91	2 180	11.5
1994/95	2 881	18.9
1995/96	3 192	19.8
1996/97	3 182	18.9
1997/98	3 276	18.8

(*) Those having an apprenticeship contract.

SOURCE: ***MINISTRY OF EDUCATION AND VOCATIONAL TRAINING.***

3.2.6. Master craftsmanship

The law of 11 July 1996 regulates the training leading to the master craftsman's diploma (*brevet de maîtrise)* and lays down the conditions for obtaining the title and diploma of a master craftsman.

The master craftsman's diploma authorises its holder to set up in the craft industry as a self-employed person and to train apprentices in accordance with statutory provisions on the right of establishment and apprenticeship. General supervision of training leading to the master craftsman's diploma and the examinations for that diploma is exercised by the Director for Vocational Training, assisted by the Deputy Director.

Courses preparing trainees for the master craftsman's diploma are organised by the Chamber of Trades. They include management and applied teaching methods, which are common to all trades, as well as technology, including the theory and practice of the occupation in question. These are arranged either at the Chamber of Trades'

Qualification Centre *(Centre de qualification de la chambre des métiers)* or in technical secondary schools (*lycées techniques)* or in continuing training centres. There is an enrolment fee for the courses.

For admission to the courses, an applicant must hold a technical and vocational proficiency certificate *(certificat d'aptitude technique et professionnelle — CATP)* or present supporting documents that are recognised as equivalent by the Ministry of Education and Vocational Training. Attendance at courses is compulsory.

The studies lead to examinations arranged by the Chamber of Trades. There are two examination sessions a year. The candidate specifies the modules for which he/she wishes to sit at the examination session. To be admitted to vocational practice tests, the candidate must be 21 or over, have engaged in the occupation in question for three years since obtaining the CATP and have succeeded in the modules for the theory of his/her chosen trade. An enrolment fee is payable for sitting the examinations.

A board of examiners is set up, whose members are appointed by the Ministry of Education and Vocational Training on a proposal from the Chamber of Trades. The Minister for Education and Vocational Training awards those who have passed the examination the master craftsman's diploma, countersigned by the President of the Chamber of Trades.

The holder of a master craftsman's diploma has the title of master craftsman in his/her trade.

Table 15: **Total number of candidates passing the master craftsman's examination, 1988 to 1997**

Year	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Number	272	295	244	255	224	242	208	204	187	207

SOURCE: *CHAMBER OF TRADES.*

3.2.7. Initial post-secondary training

Apart from the training courses described in the previous sections, the following post-secondary courses can be classified as initial vocational training.

3.2.7.1. Advanced studies for the healthcare professions

At the post-secondary level of studies, the technical secondary school (*lycée technique)* for healthcare professions offers courses in five specialist professions, i.e. those of:

- anaesthesia and resuscitation nurse: two-year course;
- midwife: two-year course;
- technical medical assistant in the field of surgery: 18-month course;
- psychiatric nurse: one-year course;
- paediatric nurse: one-year course.

Those applying for specialist studies in the health professions must hold a Luxembourg State diploma in nursing (level of studies: diploma of completion of technical secondary education) or a nursing diploma awarded in one of the European Union Member States, as provided for by Directive 77/452/EEC.

BEST COPY AVAILABLE

The courses in the five specialist subjects are dual in nature: they consist of theoretical education and laboratory work in the school (*lycée*) and clinical education in hospitals. The technical secondary school is responsible for coordinating theory and practice.

3.2.7.1.1. Anaesthesia-resuscitation nursing

Specific courses for nurses working in anaesthetics are two years in duration. They include full-time theoretical and practical study.

The curriculum includes at least 200 hours of theory and 200 hours of technical sessions. Three quarters of the technical sessions may be part of the practical placements. Practical placements extend throughout the course, with nine months in the operating room, nine months in the intensive care ward and six months in either department at the choice of the candidate and depending on availability in the hospital.

3.2.7.1.2. Midwifery

The duration of professional studies for midwives is at least two years. They cover both theory and technical education, and learning through practice and full-time clinical work.

3.2.7.1.3. Technical medical assistant in surgery

The courses are for 18 months and are full-time. The candidate may opt for training as a medical technical assistant either in general or in paediatric surgery.

The theoretical side consists of at least 350 hours of lessons.

Clinical placements are solely in the operating room and its support wards in a hospital. With the paediatric option, training places are in a paediatric surgery operating ward. The number of hours internship must be at least 2 100.

3.2.7.1.4. Psychiatric nursing

Courses for psychiatric nurses consist of theory and technical training and full-time clinical training. The curriculum for this specialist field includes at least 500 hours of theory and technical training and 1 100 hours of clinical training.

3.2.7.1.5. Paediatric nursing

The curriculum for paediatric nurses must include at least 300 hours of theory and technical training and 1 700 hours of practical training.

3.2.7.2. Advanced technician's certificate (bac + 2)

The advanced technician's certificate *(brevet de technicien supérieur* — BTS) was established by the law of 4 September 1990 reforming technical secondary education. This is a higher-level course in technical secondary education, lasting for a period of up to two years, with full- or part-time classes.

Students are accepted on the basis of their educational record. They may be admitted if they hold a Luxembourg baccalaureate, a Luxembourg technical baccalaureate or a

Luxembourg technician's diploma, or a diploma recognised as equivalent by the Ministry of Education and Vocational Training.

Success in the second year of the course leads to the advanced technician's certificate (*brevet de technicien supérieur* — BTS). The diploma specifies the specialist field and the marks obtained.

BTS-type training differs from academic education (university or short course at the *Centre universitaire*) in that it is concrete, practical, vocational and acquired in alternance between the school and the workplace.

Since its creation in 1990, the educational concept of the training leading to the BTS has been organised in modular form, taking as its model current practice in France. The training is organised in such a way as to promote the alternance of theoretical learning and practical application. Alternance can take the form of visits, job placements in companies (16 weeks during the two-year course) or case studies based on the realities of the workplace today.

Occupational expertise is provided by outside visitors and by teachers who have acquired the expertise over the years through their close contact with companies.

Table 16: **Number of trainees and diplomas obtained in three BTS sections, 1990/91 to 1996/97**

	1990/91	**1991/92**	**1992/93**	**1993/94**	**1994/95**	**1995/96**	**1996/97**	**Diplomas**
Management								
1st year	22	39	32	44	36	44	35	
2nd year		22	39	30	36	25	37	189
Marketing								
1st year			18	27	29	26	48	
2nd year				17	24	26	30	97
Secretarial								
1st year	14	12	24	23	16	24	32	
2nd year		14	12	20	23	16	24	109
Total trainees	**36**	**87**	**125**	**161**	**164**	**161**	**206**	
Total diplomas								**395**

SOURCE: ***STATISTICAL DATA.***

This table shows that BTS training has developed considerably since it was first set up in 1990. It is very much sought after by non-resident trainees, who see this form of training as a means of entering the Luxembourg labour market.

3.2.7.3. Advanced management studies (bac + 2)

Advanced management studies (*études supérieures de gestion*), called a short-cycle course, was introduced in the 1983/84 academic year. Its purpose is to train 'middle-ranking executives' in the field of management and computer science for the financial market in the broad sense, in other words for key sectors in the Luxembourg economy:

BEST COPY AVAILABLE

- — the financial and service sectors;
- — large industrial or commercial enterprises;
- — SMEs.

It is a university-level course of the short type (two years' studies, bac + 2) and is job related. It currently consists of two sections, management and computer science.

The management sector has three subsections:

- — commerce and banking
- — auditing and management
- — insurance (set up in 1989).

Since its establishment, 675 diploma-holders have emerged from the course and have entered the labour market. Nevertheless, a number of these diploma-holders (usually the best students who have obtained at least a special mention in the two years' training) have continued their studies by completing a second university course at a foreign university, as is done in France with the holders of a university diploma of technology (*diplôme universitaire de technologie — DUT*).

The conditions for admission are those laid down for technical university education. For example, for admission to the first year of the short course, candidates must hold:

- — a diploma of completion of secondary education, in any section;
- — a diploma of completion of technical secondary education, in any section;
- — a technician's diploma;
- — a foreign diploma recognised as equivalent.

Foundation courses in computer science (computer science section) and in accounting (management section) are arranged at the beginning of the first year so that all students can successfully take subjects in the various sections of the short cycle.

Students who have attended one or two years of university studies in management and computer science may be admitted directly to the second year of the short cycle.

The short cycle diploma, the only university diploma of a vocational type awarded in Luxembourg, is widely recognised in the service sector in Luxembourg, in particular in collective agreements covering the financial sector.

Since the short cycle diploma affords good prospects of work in Luxembourg, the number of foreign students enrolling for it has been steadily rising.

For the teaching body in the short cycle, the *Centre universitaire* draws upon some 50 specialist teachers of the various subjects taught:

- — 20 % of the teachers are teaching staff from higher education and university professors;
- — 80 % of the teachers are executives in the private sector (banking, insurance, the fiduciary sector) and senior civil servants in government departments.

3.2.7.4. *Institute for Educational and Social Studies (bac + 3)*

Studies leading to the diploma of graduate educator are offered at the Institute for Educational and Social Studies (*Institut d'études éducatives et sociales — IEES*), either as full-time training (three years) or as training for those already in a complementary occupation associated with the socio-educational professional activity, which entails at least half-time work (six years).

For admission, candidates must hold a diploma of completion of secondary or technical secondary education or a foreign diploma recognised as equivalent, and provide evidence of an adequate knowledge of the country's three languages.

The curricula and requirements are the same for both systems. Courses have three components:

- theory: psychology, teaching theory, sociology, gerontology, medical and legal subjects and subjects in the branches of application such as speech therapy, applied statistics, social work and interview techniques;
- technical: self-expression subjects such as the teaching of physical education and sports, audiovisual education, creativity and theatre for children;
- practical: work placements in educational and social establishments.

During the second year, each student is required to produce a dissertation in the form of personal work of scientific interest.

Students who have passed the final examination are awarded a 'diploma as graduate community educator' by the Minister for Education and Vocational Training.

3.2.7.5. Higher Institute for Educational Studies and Research (bac + 3)

The Higher Institute for Educational Studies and Research (*Institut supérieur d'études et de recherches pédagogiques — ISERP*) offers a three-year course leading to the teaching proficiency certificate (*certificat d'aptitude pédagogique*), the certificate of teaching skills, a course for teachers in primary and pre-school education.

For admission to ISERP, candidates must have a diploma of completion of secondary or technical secondary education or a foreign diploma recognised as equivalent, and must pass a test in the country's three languages (Luxembourgish, French and German). The results obtained in the examination for the diploma of completion of secondary or technical secondary education are taken into account in listing candidates in order. Each year the government assesses the needs and determines the number of applicants who can be admitted to the first year of the course.

Following the first year of joint training, students who wish to teach in primary education and those going to pre-school education go on to study for two years in two partially separate sections. Each option includes specific courses such as the methodology of reception classes and the 'expression' branches for the pre-school option. Students are also required to produce a dissertation and to go on a seven to nine weeks' placement per year in primary or pre-school education. There is also a one-week placement in Germany in the second year and a week's placement in France in the third year.

The Ministry of Education and Vocational Training awards one of the following certificates to students who pass the final examination on completion of the three-year course:

- the certificate of teaching studies, primary education option,
- the certificate of teaching studies, pre-school education option.

3.2.7.6. Course in industrial engineering at the Higher Institute of Technology (bac + 4)

The Higher Institute of Technology (*Institut supérieur de technologie — IST*) is a higher education establishment whose status has, since September 1997, been regulated by the law of 11 August 1996.

This law defines the terms of reference of public sector higher education as:

- providing initial and continuing training;
- conducting scientific and technological research and evaluating the results;
- promoting a scientific and technological culture and information;
- initiating and extending inter-regional, European and international cooperation.

The goals of the IST are therefore to:

- provide university-level higher education, preparing students for middle-ranking posts in production, applied research and the service sector;
- participate in training courses in the third cycle and organise such training as necessary;
- organise specialist courses as part of placements and seminars;
- take part in continuing vocational training;
- promote relations with industry;
- develop scientific and applied research in its own fields.

The IST is a public-sector establishment with legal personality administered under private law. It enjoys financial and administrative autonomy as well as independence in its teaching and scientific work.

At present the IST offers courses in four disciplines:

- civil engineering;
- electrotechnology;
- applied computer science;
- mechanical engineering.

Studies at the IST consist of eight semesters, one of which is spent on practical vocational work and one on end-of-course work. The studies are structured in two cycles, each lasting two years.

Candidates succeeding in the course are awarded a diploma as an industrial engineer (*diplôme d'ingénieur industriel*).

Just like the diploma awarded by *Fachhochschulen* in Germany and ISIs in Belgium, the title of industrial engineer is a university-level title. It is automatically entered into the register of diplomas (created by the law of 17 June 1963), the purpose of which is to protect higher education titles.

In accordance with the law on the right of establishment of 28 November 1998, holders of this title are entitled to apply to the Ministry of Small Firms and Traders (*Ministère des classes moyennes*) for authorisation to practise a liberal profession.

Diploma-holders wishing to go on to the third cycle in foreign universities may be granted special terms of admission depending on the university of their choice. The IST has created an exchange network with certain universities and other university institutes to facilitate this as far as possible.

The IST may arrange short technical courses at the tertiary level for vocational purposes.

The IST takes part in several European Union programmes under which it cooperates with:

- some 40 institutes and universities under the Socrates/Erasmus programme;
- six institutes and universities under bilateral protocol agreements; and
- three universities in Austria under cultural agreements.

In addition, the IST, through its four departments, is a participant in the Erasmus/European credit transfer system (ECTS) programme, which promotes the mobility of students. The year or half-year that students spend in foreign universities should not in principle add to the length of their course.

With the education and training in new technology it provides, the IST is particularly well placed to transfer knowledge. Its research projects help to generate expertise in many subjects within its field. These research and development projects have also won it several awards for innovation and creativity.

The IST professors take every step to maintain the high standard of training and the value of the diplomas to which their training leads. To this end, the IST associates closely its own higher education research activities with the *Centre de recherche public Henri Tudor* and with industry in the Grand Duchy.

3.2.8. Training courses at the Luxembourg University Centre

Following the reform of higher education, the University Centre (*Centre universitaire*) was converted by the law of 11 August 1996 into a private establishment with legal personality. The Centre, which is administered under private law, enjoys financial, administrative, teaching and scientific autonomy. In terms of the courses it provides, its terms of reference are to:

- organise short-cycle higher education courses for vocational purposes (see also Section 3.2.7);
- organise first-cycle university studies preparing students for continuation of their university studies;
- take part in second-cycle advanced or university courses;
- train or take part in the training of trainers;
- organise specialist training courses as part of practical placements;
- take part in continuing training, especially for teachers in post-primary education;
- develop scientific and applied research in the fields within its sphere;
- maintain contacts with economic and professional circles.

Holders of a diploma of completion of secondary or technical secondary studies or a foreign diploma recognised as equivalent may enrol as regular students. In addition, candidates who have successfully completed at least one year of university studies outside Luxembourg may be accepted. There is also provision for the enrolment of external students, provided that the administrator of the department concerned agrees.

3.2.9. Training/employment organised by the Luxembourg Institute for Banking Studies

Training/employment is an apprenticeship in banking targeted at those holding a diploma of completion of secondary or technical secondary studies in the administrative and commercial division. This training, launched in autumn 1989 by the Association of Luxembourg Banks and Bankers (*Association des banques et banquiers du Luxembourg — ABBL*) and its Institute for Banking Studies (*Institut de formation bancaire — IFBL*), is one of the very few professional training courses of which the organisation does not come within the sphere of responsibility of the Ministry of Education and Vocational Training and the vocational chambers.

The training/employment formula is based on two successive contracts for a specific period of one year each between the employee being trained and the bank. The contract is for part-time work. Trainee employees are paid 65 % of the full-time salary, in accordance with the principles of the collective agreement for the banking sector. An average of 14 hours per week are set aside for training and 26 hours are allocated to work in the bank, which takes the form of active placements in at least three key departments of the bank. The progress of the practical part is monitored by an apprenticeship plan (*Lehrplan*) and by an oral examination at the end of the contract. There are quarterly tests to check on the acquisition of theory. Refresher courses in languages, accounting, economics, law and computer technology are arranged for those employees who need them. Over the course of the two-year period, trainee employees attend 33 one-day briefings on banking techniques. Trainees are expected to learn about these subjects for themselves through their own personal study. Briefings are provided by professionals in the sector who have received special training in teaching methods from the IFBL.

Training/employment is an apprenticeship arrangement for the banking sector, which meets the demands of this key sector in the Grand Duchy.

3.3. Continuing vocational education and training

3.3.1. Legislative framework and objectives

Continuing vocational training, as defined in particular in the Law of 4 September 1990 on technical secondary education, is designed to:

— help those holding a vocational qualification to keep abreast of technological progress and meet the needs of the economy by supplementing or expanding that qualification;
— offer those engaged in an occupation, either as employees or self-employed, or the unemployed, an opportunity to prepare for the diplomas and certificates covered by the law on technical secondary education and to obtain a vocational qualification in an accelerated training system;
— support and supplement the practical apprenticeship provided in the workplace, on the proposal of the vocational chambers concerned.

The law states that continuing vocational training may be organised by:

(1) the Ministry of Education and Vocational Training;
(2) the vocational chambers;
(3) the communes;
(4) private associations individually authorised to provide such training by the Minister.

On a decision by the Minister, continuing training courses may also be run in technical secondary schools *(lycées techniques)* under the supervision and the authority of the head of the secondary school.

Lastly, it should be pointed out that the national action plan to promote employment places particular stress on vocational training. Since unemployment in Luxembourg is largely due to the mismatch between the supply of, and demand for, jobs, such training will be of key importance to the plan, whether it is targeted at the unemployed or at people already in employment. It is one of the factors allowing the employed and the unemployed to enhance their employability and so retain their jobs or return to the labour market.

The current legislative framework should not be confused with a 'framework law' on the subject, which regulates the market.

It is hard to obtain an overview of continuing training activities, since the schemes are so disparate. Private ventures have complete freedom at the intra-enterprise or other levels.

The continuing vocational training market is in fact composed of provision by the Ministry, the public sector and the private sector.

3.3.2. Continuing vocational training organised by the Ministry of Education and Vocational Training

3.3.2.1. Context of the law of 4 September 1990

The law of 4 September 1990 on technical secondary education established in particular the Vocational Training Service *(Service de la formation professionnelle)*. This service enables the Director for Vocational Training to carry out the tasks conferred on him by the law in connection with initial and continuing vocational training.

The law provides that continuing training organised by the Ministry will be conducted in continuing vocational training centres *(centres de formation professionnelle continue)*. These centres may also organise:

- practical training courses for pupils in the preparatory system;
- vocational guidance and initiation courses for the young jobless;
- vocational training courses leading to the preliminary technical and vocational certificate *(certificat d'initiation technique et professionnelle)*, in cooperation with a technical secondary school (*lycée technique)*;
- vocational training and vocational rehabilitation courses as well as general education for the unemployed and for workers at risk of losing their jobs;
- courses for vocational and functional readaptation and rehabilitation.

3.3.2.2. Continuing vocational education centres

The two continuing vocational training centres *(centres de formation professionnelle continue — CFPC)* are administered by the Director for Vocational Training, with the support of his deputy.

The Director for Vocational Training is responsible for the proper conduct of courses, their administrative, budgetary and teaching management, the monitoring of trainees enrolled and the evaluation of their performance. He has hierarchical authority over the administrative, technical and teaching staff assigned or seconded to the centres. He makes any proposals he thinks fit to the Minister on the administration of the centres. He also submits an annual report on the work of the centres and on the relationship with the advisory bodies.

He suggests agreements with Luxembourg or foreign institutions as required to achieve the objectives of continuing training. Courses are taught, depending on the needs, by civil servant teachers seconded full- or part-time, or by lecturers.

For psychological and educational guidance, the services of psychologists and community educators are used, who are either seconded or recruited as civil servants.

The CFPC's work is at several levels and varies considerably depending on the needs.

The target group for the centres consists of adults requiring social training, continuing training or retraining, and young people requiring insertion or rehabilitation training.

Expressed in number of hours of training, 20 % of the work of the CFPC is continuing training proper, in other words for employees, and 80 % is training for those seeking jobs or new jobs, aimed at the unemployed.

In the latter category, a distinction is made between long training courses (one or two years) directed towards young first-time jobseekers, and short training courses (less than one year) mainly aimed at adult jobseekers. The content of these courses is generally developed with the enterprises concerned so as to increase the likelihood of trainees finding work when they have completed their course.

In this context, it has been confirmed that the idea of cooperation between the school and the workplace is easier to implement in a structure that is not an integral part of the initial training system in the narrow sense.

Most of the certificates awarded for continuing training are certificates of attendance. These are not recognised at national level, although they are sometimes recognised within a specific sector.

3.3.2.3. Adult training service

The Ministry of Education and Vocational Training has been organising courses for adults since 1965. The Adult Training Service *(Service de la formation des adultes* — SFA), officially established by the law of 19 July 1991, has the following tasks:

- to coordinate the training available for adults in evening courses by secondary or technical secondary education, the Higher Institute of Technology (*Institut supérieur de technologie)* and the University Centre (*Centre universitaire)*, as well as training provided by the Languages Centre (*Centre de langues)*;
- to organise an adult training system that offers, in evening courses, access to the same diplomas and certificates as are awarded following day courses;
- to provide basic instruction for adults living in Luxembourg who express the wish to receive it;
- to organise and/or define the content of general-interest courses in what are known as the fields of 'general training and social advancement', either directly or through the communes or non-profit-making associations meeting certain criteria;
- to define curricula for courses of general interest and courses arranged for adults under special agreements.

The diplomas and certificates awarded for successful studies in adult education give the same rights as the corresponding diplomas obtained in daytime education.

The Languages Centre, which comes under the Adult Training Service (S*ervice de la formation des adultes* — *SFA*), has the task of offering language courses so that everyone can acquire an ability to understand and express themselves, which is vital for integration into social, economic and cultural life.

3.3.3. Continuing vocational training organised by the vocational chambers and the social partners

3.3.3.1. The vocational chambers

The vocational chambers (*chambres professionnelles*) set up by the law of 4 April 1924 are very active in advanced vocational training.

Their training activities have developed since the Second World War, when they started to take over responsibility for responding to specific demands from their members.

The chambers involved are the Chamber of Trades *(Chambre des métiers)*, the Chamber of Commerce *(Chambre de commerce)* and the Chamber of Private-sector Employees *(Chambre des employés privés)*. Throughout the year, they organise courses, placements, seminars or lectures on more general management themes or more technical subjects. The special feature of these courses is that they are addressed as a priority to an individual target group. The general idea of training tailor-made for an employer is gradually developing among these providers, although mainly within the National Office for Productivity Enhancement (*Office luxembourgeois pour l'accroissement de la productivité — OLAP*) and the National Institute for the Development of Continuing Training (*Institut national pour le développement de la formation professionnelle continue — INFPC*) (see Section 3.3.4.3).

3.3.3.1.1. The Chamber of Trades

The Chamber of Trades *(Chambre des métiers)* draws up a programme of courses every year for its own members. This is a permanent training measure directed at the heads of enterprises operating on their own account and at the staff employed in those enterprises.

The Chamber of Trades organises the following training:

- vocational courses in the field of craft trades;
- courses in the management of small and medium-sized enterprises;
- training sessions for staff at various levels of the enterprise with a view to enhancing the skills of personnel at every level;
- courses in advanced craftsmanship.

3.3.3.1.2. The Chamber of Commerce

The Chamber of Commerce *(Chambre de commerce)* has been a pioneer in the field of continuing training since the immediate post-war period. The objective of this course has been to give those people who had suffered from the defects of the educational system in wartime an opportunity to make a useful contribution to economic revival.

To this end, from 1948 onwards, it established a regular cycle of accounting courses for beginners and a course in the French language. The accounting courses were particularly successful and were broadened to three levels of training. The language course was on the language of business and commercial correspondence.

With the onset of the economic crisis in 1976, there was a new risk of difficulties for the heads of enterprises and a threat of unemployment for employees. The development of new information and office technologies was accentuating the need for retraining and relearning. Continuing training became even more important. The Chamber of Commerce set up a department within its secretariat to administer continuing training.

The training activities offered by the Chamber of Commerce are:

- evening courses leading to official certificates and diplomas;
- seminars and lectures;
- courses for the employees of its member enterprises;
- accelerated courses for independent professions, as requested by the State.

3.3.3.1.3. The Chamber of Private-sector Employees

The boom in the service sector, together with a genuine revolution in new technologies, created a pressing need for the training and qualification of staff as far back as in the late 1960s.

In response to this need, the Chamber of Private-sector Employees (*Chambre des employés privés* — CEP-L), on the basis of its competences under the law of 4 April 1924, started in 1971 to organise computer science courses, which since then have been greatly expanded and diversified.

Today the CEP-L offers some 80 modules in five sections:

- information and office technology
- management and accounting
- economics and law
- commercial action
- social skills.

The modules lead to examinations and the Ministry of Education and Vocational Training awards a certificate to those who pass. Subject to certain conditions, if trainees succeed in six modules, they are also entitled to a diploma issued by the Ministry. The courses are evening classes and they are decentralised throughout the country. There are about 3 500 enrolments for the autumn and spring terms.

The CEP-L also concluded a cooperation agreement with the University of Nancy II early in 1996. Two university third-cycle diplomas have been organised since then as part of continuing training in Luxembourg:

— the diploma of specialist higher studies, certificate of proficiency in company administration (*diplôme d'études supérieures spécialisées, certificat d'aptitude à l'administration des entreprises — DESS-CAAE*) and
— the diploma of specialist higher studies, human resource direction and management (*diplôme d'études supérieures spécialisées, direction et gestion des ressources humaines — DESS-DGRH).*

3.3.3.2. The Association of Luxembourg Banks and Bankers

Due to the expansion of the financial sector, the Association of Luxembourg Banks and Bankers set up its own training centre in 1970. In 1990, a Banking Training Institute *(Institut de formation bancaire Luxembourg — IFBL)* was set up. This centre, founded in the legal form of a non-profit-making association and recognised as being in the public interest, has the goals of organising, implementing, developing and promoting training resources, curricula and activities in the interests of Luxembourg banking enterprises.

Three types of training are provided:

— an introductory course,
— a continuing training course which covers, in particular, general subjects for people working in the banking sector and in foreign languages,
— a longer course for financial analysts and tax experts.

3.3.4. Mixed providers

A few training bodies are administered by bi- or tripartite management boards.

3.3.4.1. Luxembourg Agency for Productivity Enhancement

The Luxembourg Agency for Productivity Enhancement *(Office luxembourgeois pour l'accroissement de la productivité* — OLAP) was set up in 1957 with the status of a non-profit-making association with members from both sides of industry. Its board of directors consists of six members with equal representation from employers' and employees' chambers and the unions. The government is represented by three delegates, designated by the Ministries of the Economy, Small Firms and Finance.

The objects of OLAP are to:

— promote higher productivity within enterprises;
— encourage the exchange and dissemination of information that may help to boost productivity;
— encourage and promote the further training of personnel at every level.

Apart from customised training courses, which are continually expanding, OLAP normally offers:

— computer science workshops;
— inter-enterprise seminars and placements;
— evening classes in typing and English.

3.3.4.2. Public research centres

The public research centres *(centres de recherche publics* — CRP) were created by the law of 9 March 1987 in order to:

- — organise technological research and development in the public sector;
- — arrange for the transfer of technologies and for scientific and technical cooperation between enterprises and the public sector.

The two institutions of interest in the context of continuing training are the Public Research Centre — University Centre (*Centre de recherche public — Centre universitaire — CRP-CU*), attached to the Luxembourg University Centre (*Centre universitaire de Luxembourg)* and the Public Research Centre Henri Tudor (*Centre de recherche public Henri Tudor — CRP-HT*), attached to the Higher Institute of Technology *(Institut supérieur de technologie)*.

The centres organise the transmission of the knowledge acquired during research activities through high-level training seminars. These seminars are directed at young academics wishing to improve their academic knowledge and executives with some professional experience who wish to improve in or learn more about new professional fields.

As public-sector establishments, the centres are directed by a management board consisting of government representatives and leading figures from the private sector.

3.3.4.3. National Institute for the Development of Continuing Training

The National Institute for the Development of Continuing Training *(Institut national pour le développement de la formation professionnelle continue — INFPC*) was established on 1 December 1992. Its aim is to formulate the theory of continuing training to promote technological progress and innovative teaching methods. The work of the INFPC is aimed at all those active in the economy, whether they are major industrial concerns, small and medium-sized enterprises, public authorities, associations or professional groups or even the self-employed.

As a public-sector establishment, the INFPC has its own legal personality and financial autonomy. It is administered by a management board consisting of representatives of five ministries and the chambers, an expression of the desire to bring all sides of the economy together. The INFPC's strategy is based on a modular approach. Not having a fixed programme of training courses, its work may range from simple one-off schemes to the long-term monitoring and support of an enterprise.

3.3.4.4. Advanced College of Work

As an instrument for post-school training, the mission of the Advanced College of Work *(École supérieure du travail*) is to offer employees as well as self-employed people a course aimed at the acquisition, improvement or adaptation of knowledge in the fields of economics, taxation, constitutional and labour laws, social security legislation and culture.

The training is arranged in evening classes, weekend and one-week courses.

Whereas the evening and weekend courses are accessible to all employees and self-employed workers, the one-week courses are solely for representatives of the personnel of enterprises who are entitled to training leave pursuant to Article 28 of the law of 18 May 1979 reforming staff representation, as amended.

The law of 20 March 1984 establishing the Advanced College of Work (*École supérieure du travail)* places it under the direct authority of the Labour Minister, supported by a management board with a joint membership of delegates from the most representative employers' and employees' professional organisations, as well as government representatives.

3.3.4.5. *Institute of Economic and Social Training*

In 1986, the Chamber of Labour and two unions, the Christian Trade Union Federation of Luxembourg (*Lëtzebuerg Chrëschtleche Gewerkschaftsbond — LCGB*) and the Independent Workers' Union of Luxembourg (*Onofhängege Gewerkschaftsbond Lëtzebuerg — OGBL*), stablished a training institute with the status of an establishment in the public interest known as the Institute of Economic and Social Training *(Institut de formation économique et sociale — IFES)*.

The training it provides is mainly for members of the two unions:

- seminars for specific target groups such as young people, frontier workers and women;
- seminars on labour law, social law and security in the workplace;
- seminars on issues with a social dimension, communication, management style and quality circles;
- seminars organised jointly with OLAP on political economy, business economics and new technologies.

Seminars with a broader content, such as the State budget, vocational training and the views of the Economic and Social Council, are organised for the members of the Chamber of Labour and staff representatives.

At the international level, the IFES arranges seminars for the members of trade unions from central and eastern Europe.

IFES is administered by a six-member board of directors, two from each of the partners.

3.3.5. Private-sector providers

In a recent attempt to produce a census, it was estimated that there are about 100 private-sector providers resident and present in the Luxembourg market. These commercial companies often combine the sale of goods, principally computer hardware and software, with the provision of training for their customers.

Apart from the computer companies, there are several private language schools.

A number of consultancy firms offer all sorts of training courses at management level.

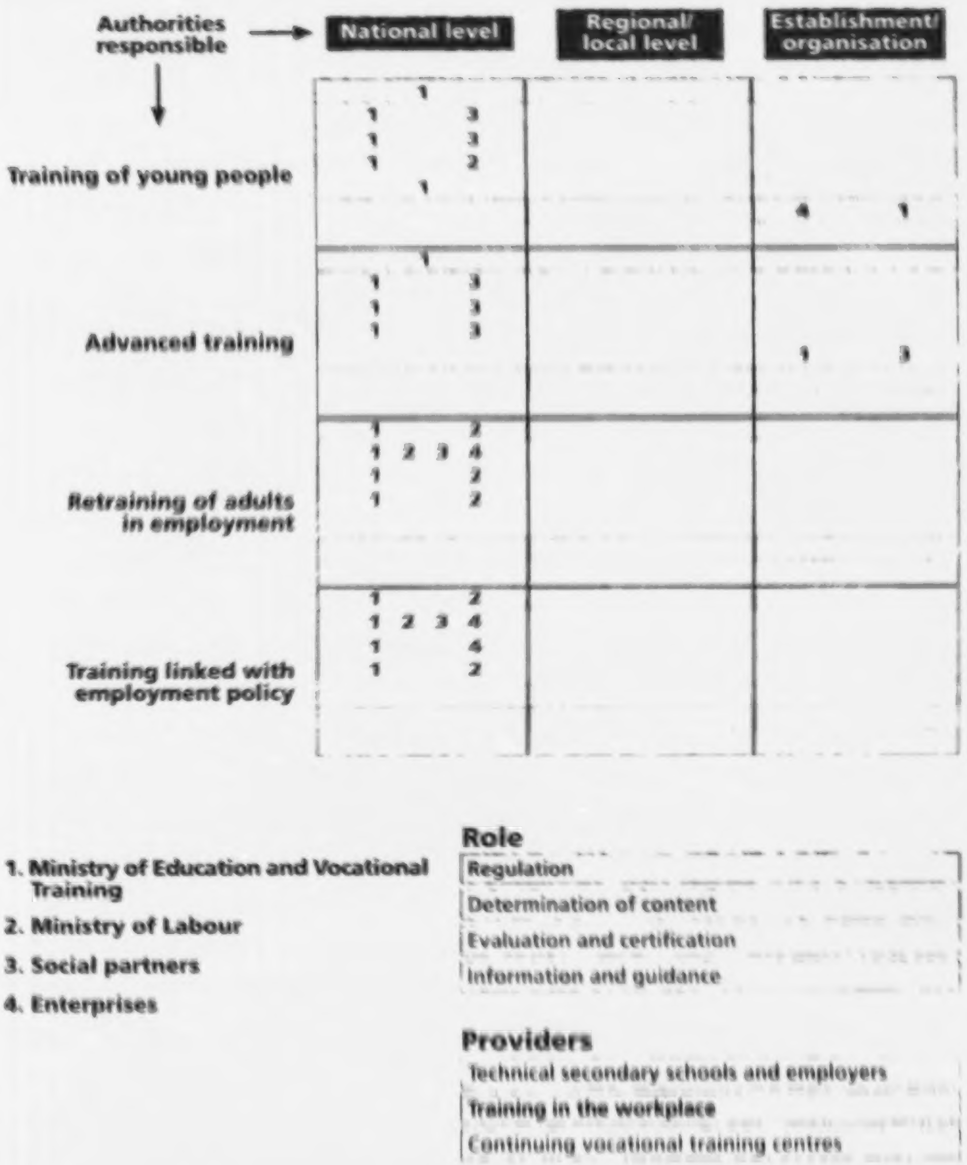
Apart from this very sketchy information for this market, there is no detailed information available about the precise subjects offered and the number of people trained.

Chapter 4
The regulatory and financial frameworks

4.1. The regulatory framework

The administrative structure of vocational training has been described in detail in the previous chapters. The following table summarises the system.

Figure 3. **The regulatory framework**


Authorities responsible
National level
Regional/ local level
Establishment/ organisation
Training of young people
Advanced training
Retraining of adults in employment
Training linked with employment policy
1
1 3
1 3
1 2
1
4 1
1
1 3
1 3
1 3
1 3
1 2
1 2 3 4
1 2
1 2
1 2
1 2 3 4
1 4
1 2
1. Ministry of Education and Vocational Training
2. Ministry of Labour
3. Social partners
4. Enterprises
Role
Regulation
Determination of content
Evaluation and certification
Information and guidance
Providers
Technical secondary schools and employers
Training in the workplace
Continuing vocational training centres

BEST COPY AVAILABLE

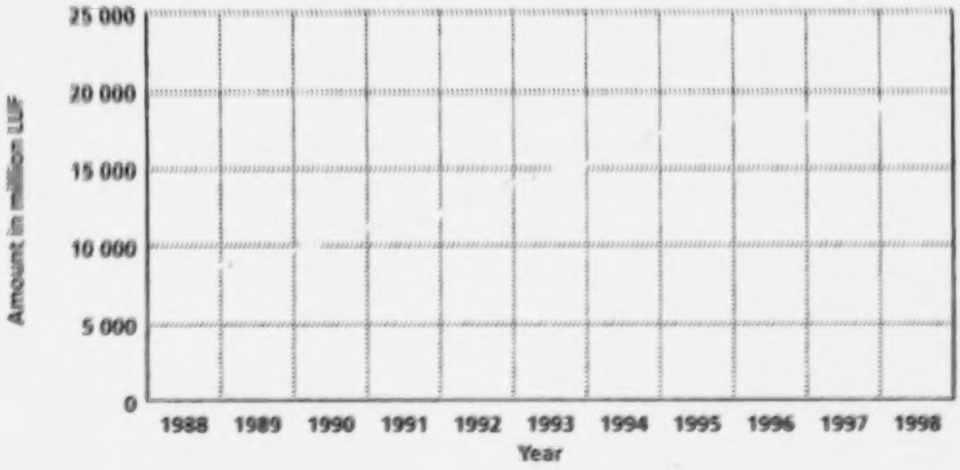
4.2. The financial framework

4.2.1. Growth in the budget of the Ministry of Education and Vocational Training

It is a tenet of Luxembourg public education that it is free of charge. In other words, all costs are borne by either the State budget or the budgets of communes.

Information on the costs and financing of the Luxembourg education system is confined to public-sector education provided in Luxembourg schools and financed by the public-sector authorities (ministries and communes).

Figure 4. **Growth in the education budget, in million LUF (1), 1988 to 1998**



(1) EUR 1 = LUF 40.3399.

SOURCE: *MINISTRY OF EDUCATION AND VOCATIONAL TRAINING'S ACTIVITY REPORTS.*

The slight decline in 1997 is solely due to changes to the system for accounting for participation by the communes in the remuneration of teaching staff in pre-school and primary school education.

BEST COPY AVAILABLE

Table 17. Unit costs for the various levels of education, 1986 to 1998 (in 1 000 LUF)

Year	**1986**	**1990**	**1994**	**1998**
Total national education budget (1)	7 436 256	10 715 721	16 585 891	19 257 929
Pre-school and primary				
Cost (2)	2 631 698	4 060 299	6 010 875	5 194 159
Number of pupils	32 862	34 503	37 003	39 054
Cost per pupil	80	118	162	133
Post-primary (3)				
Cost of secondary education	1 566 264	1 943 455	2 825 069	3 680 748
Cost of technical secondary education	2 191 954	3 089 318	4 326 892	6 329 844
Total cost	3 758 218	5 032 773	7 151 961	10 010 592
Number of pupils in secondary education	7 434	7 550	8 494	9 014
Number of pupils in technical secondary education (4)	11 630	10 157	11 334	16 400
Cost per secondary education pupil	211	257	333	408
Cost per technical secondary education pupil	188	304	382	386
Average cost per technical secondary education pupil (5)	200	281	357	397

(1) *Source*: State budgets for the corresponding financial years (Sections 11.0 to 12.9).

(2) *Source*: total credits for Section 12.3. The 1998 amount is less than the amount for 1994 due to a new method of accounting for the participation by communes to the financing of staff remuneration.

(3) *Source*: calculation of the cost of a pupil in public sector post-primary education (law of 31.5.1982 on the relations between the State and private post-primary education).

(4) *Pupils attending classes part-time are included on a one-third basis.*

(5) *Unit costs vary in line with the introduction of reforms and the cost of teaching staff.*

4.2.2. The Ministry of Education and Vocational Training's budget in the context of the State budget

In 1997, ordinary education spending accounted for 12.3 % of total ordinary spending by the State and for 3.23 % of GDP (1).

In 1998, ordinary national education spending accounted for 12.43 % of total ordinary State expenditure.

4.2.3. Investment in vocational training

The State funds vocational training almost exclusively through budget appropriations. The amount of this expenditure is laid down annually in the budget law.

The national education budget cannot be broken down by expenditure on initial and on continuing training. The table below shows particulars of the various items of expenditure.

---

(1) Gross domestic product (integrated European economic accounting system).

BEST COPY AVAILABLE

Table 18. **Ministry of Education and Vocational Training budget, 1990, 1992 and 1998 (in 1 000 LUF)**

	1990	1992	1998
General expenditure	1 126 210	1 359 782	1 066 451
Educational Film Office — Audiovisual Centre	11 506	12 509	20 565
Educational Innovation and Research Department	3 742	23 944	97 756
Psychological and Educational Guidance Centre	325 641	406 495	421 208
Sports and out of school sports activities	23 702	47 349	46 110
Institute for Educational and Social Studies		46 655	115 307
Scientific research and applied research			291 339
Private education establishments			794 533
School canteens			135 324
Special education	557 694	621 801	890 523
Adult education	38 873	36 144	113 387
Inspectorate	39 518	41 574	68 783
Pre-school and primary education	4 387 673	4 997 800	5 194 159
Secondary education	2 000 875	2 306 018	3 503 625
Technical secondary education	2 715 350	3 076 246	5 761 824
Vocational Training Department	22 251	53 128	265 775
University education	61 880	66 919	195 304
Higher Institute for Educational Studies and Research	28 596	36 482	51 022
Higher Institute of Technology	142 915	149 850	224 924
Total	**11 486 426**	**13 282 696**	**19 257 929**

SOURCE: *MINISTRY OF EDUCATION AND VOCATIONAL TRAINING.*

4.2.4. Financial support for pupils and trainees

Pupils are not asked to contribute towards the operating costs of the school they attend, but pay solely for their own school materials (books, etc.). To assist with the costs they face at the beginning of the school year, each pupil is given a special allowance pursuant to the law of 14 July 1986. This allowance is graduated according to the age of the pupil and is paid once a year. In addition, grants may be made to particularly deserving pupils who, especially because of their material and family situation, need such help. Public transport is free of charge for pupils in every level of education.

During initial vocational training in the enterprise, apprentices receive an apprenticeship allowance paid by the employer. The Grand Ducal decree of 29 August 1988 laid down the conditions and arrangements for aid and bonuses for the promotion of apprenticeship which are available to employers (see Section 4.2.5).

4.2.5. The financial incentives for employers investing in initial training

The Grand Ducal regulation of 29 August 1988 laying down the conditions and procedures for aid and bonuses for the promotion of apprenticeship, provides for financial aid to employers who take on the training of apprentices under an apprenticeship contract, as well as support for apprentices who are successful in their year's apprenticeship and the examination taken on completion of the year.

BEST COPY AVAILABLE

For instance, training workplaces may apply for:

- aid to promote apprenticeship, amounting to 8 % in general, and for manual trades amounting to 12 %, of the actual apprenticeship allowance paid to the apprentice;
- supplementary promotion aid of 12 % to those occupations for which there is a structural shortage of labour;
- reimbursement of the employer's social security contributions relating to the apprenticeship allowance.

The minimum apprenticeship allowances for trainees working for the CATP, CCM and CITP (see Section 3.2.5) vary considerably from one trade to another.

Since 1995, the tripartite coordination committee has adopted certain measures to make apprenticeship more attractive. Financially, this takes the form of special aid for employers undertaking to accept pupils from training streams in which the training is conducted full time in school, and of an apprenticeship allowance when practical training includes job experience in the workplace.

4.2.6. The financial incentives for employers investing in continuing vocational training

At present, there is no legislative framework regulating financial incentives for employers, although the cost of continuing training incurred by employers can be deducted from local income taxes. In addition, special low-interest loans may be granted to employers to cover the costs of training, retraining and refresher training of their employees.

The Force report (*Tableau de bord,* 1994) stresses that the collective agreement covering the banking sector includes a clause on training leave (one day per examination organised by the Association of Luxembourg Banks and Bankers (see Section 3.3.3.2). In addition, this agreement, which was updated in 1996, covers the funding of training courses (50 % is payable by the employee, but is refunded by the employer if the employee is successful) and distribution of training time (50 % in working hours and 50 % in the employee's own time).

At present, there is no measure on incentives to promote continuing training, or even the creation of training plans within enterprises.

Nevertheless, the Tax Code (Article 45) states that certain operating expenses may be deducted from trading profits, defined as follows: 'deductible operating expenses are regarded as those expenses incurred exclusively by the enterprise'. Comment 12.17 of the tax law states that 'expenditure by the taxpayer to improve his knowledge in the sector in which he works may be deducted as operating expenses or the cost of obtaining such training'. It is not possible, however, to estimate the total value of this incentive.

The law on economic expansion (law of 14 May 1986), Chapter 2, Article 5, states that 'competent ministers may grant subsidies to credit institutions and financial institutions governed by public law that are approved for these purposes so that they can grant low-interest loans for the purpose of, among other things, covering costs arising from the training, retraining or refresher training of the workforce'.

The new law on continuing training now in the pipeline will quantify the financial incentives for investment in continuing training by employers.

4.2.7. The employers' investment in continuing training

Statistics on the cost of continuing training are not systematically collected. The only figures available for the country as a whole are those derived from the European Union continuing vocational training survey (CVTS) conducted in 1994, based on reference year 1993 (Houssemand, 1994; Houssemand and Martin, 1995). It was conducted on a sample of 950 enterprises chosen out of the total population of Luxembourg enterprises in all sectors of activity, except for agricultural firms, public administration, health and enterprises with a workforce of fewer than 10. The survey findings were weighted according to sector of activity and the size of the enterprise.

The definition of continuing training is the same as that of the European Union, i.e. 'Continuing vocational training combines all pre-planned training activities fully or partially financed by the enterprise (in other words during paid work)'. It excludes any form of training of apprentices or trainees on job placements, as well as any training provided for people who are not members of the enterprise's own workforce.

The amounts invested in continuing training represent 1.7 % of the total cost of the Luxembourg workforce. In 1993, employers spent just over LUF 2 billion on training their personnel, corresponding to 0.5 % of GDP.

4.2.8. The financial incentives for investment by individuals in continuing vocational training

According to the comment in Article 12 of the tax law on income tax mentioned above (see Section 4.2.6), individuals may claim against tax any expenditure on their own continuing vocational training.

This category of cost is not subject to a flat-rate ceiling. On the contrary, the tax authorities take account of actual expenditure. The types of expenses eligible are enrolment fees, learning materials, travel and board and lodging. To assess the validity of expenses claimed by individuals, the tax authorities draw on German case-law. Taxpayers for their part are required to provide evidence that the continuing training followed was intended to improve the skills required for their current work.

For example, the cost of going on courses to obtain a master craftsman's diploma (*brevet de maîtrise)* is not taken into account, nor are courses in the second training stream etc. It is clear that the borderline between the fields of continuing training and initial vocational training is also proving difficult to define in tax legislation. German case-law is followed.

At present it is difficult to put a figure on the financial incentives granted to individuals or to state the number of people claiming for expenses arising from continuing training.

Chapter 5
Qualitative aspects

5.1. Certification and qualifications

5.1.1. Administration and coordination of the initial education system

The fact that a single ministry — the Ministry of Education and Vocational Training — is responsible for initial education as a whole means that the Ministry can administer and coordinate the system rationally. In view of the prerogatives granted by law and regulations, there is very close cooperation between the vocational chambers (*chambres professionnelles*) and the Ministry.

Subsidised private educational establishments are subject to the same controls as those in the public sector. Pupils in private schools must take the examinations organised by the public authorities if they want to obtain the official diplomas.

Within the framework of adult training, those sitting final examinations may, depending on their school record, enrol for evening classes. The procedures for the examinations are identical for all candidates. Some of the final examinations may be split into two parts.

5.1.2. The lower cycle of secondary education

Pupils, who have successfully completed class 9 in the first cycle of technical secondary education or class 5 in the first cycle of secondary education (see Section 2.2), are awarded certificates specifying the type of class they have completed. Pupils who have complied with their compulsory schooling obligations are awarded a certificate to that effect.

5.1.3. The intermediate cycle of secondary education

Vocational-type studies lead to an examination on completion of apprenticeship, success in which confers a technical and vocational proficiency certificate *(certificat d'aptitude technique et professionnelle — CATP)*.

The examination on completion of apprenticeship is a national examination. It includes a theoretical part and a practical part. The results of theoretical and practical training during the course of the final year of apprenticeship are taken into account.

At present the manual proficiency certificate *(certificat de capacité manuelle — CCM)* is awarded to pupils who have succeeded in the practical part of the examination on completion of their apprenticeship.

In some occupations, pupils may begin a two-tier course. The first tier leads to a preliminary technical and vocational certificate *(certificat d'initiation technique et professionnelle — CITP)*, whereas the second tier leads to a technical and vocational proficiency certificate *(certificat d'aptitude technique et professionnelle — CATP)*.

5.1.4. The higher cycle of secondary education

The higher cycle (*cycle supérieur*) of the technician training system leads to a national examination.

Table 19. **Overview of the different types of diplomas and certificates awarded in Luxembourg**

Name	Level	Method of acquisition	Source of diploma	Awarding authority	Organisation of evaluation	Entry skills and/or knowledge required	Provides access to occupations/ training	Theoretical age on completion
Industrial engineer	Bac+4	Full time	National	MENFP	MENFP	Bac/technician	Business creation, consultant engineer	23
DESS-CAAE (1)	Bac+5		French State	Nancy 2	Nancy 2/CEPL	Company executive, administrative executive, bac+4		
DESS-DGRH (2)	Bac+5		French State	Nancy 2	Nancy 2/CEPL	DRH and executives bac+4		
BTS (3)	Bac+2	Examination, continuing assessment	National	MENFP	MENFP	Bac/technician	Working life	21
Short cycle	Bac+2	Examination, continuing assessment	National	MENFP	MENFP	Bac/technician	Working life University studies	21
		Banking apprenticeship training/ employment			IFBL (4)			
Certificate of continuing training					MENFP/CEPL			
Classical baccalaureate	Bac	Full time	National	MENFP	MENFP	Guidance assessment, class 9 successfully completed	University studies, working life	19
Technical baccalaureate	Bac	Full time	National	MENFP	MENFP	Guidance assessment, class 9 successfully completed	University studies, working life	19

Name	Level	Method of acquisition	Source of diploma	Awarding authority	Organisation of evaluation	Entry skills and/or knowledge required	Provides access to occupations/ training	Theoretical age on completion
Technician's diploma	13th school year	Full-time	National	MENFP	MENFP	Guidance assessment, class 9 successfully completed	Working life, higher technical studies	19
CATP (5)	12th school year	Apprenticeship full time, part time	National	MENFP/ Vocational chambers	MENFP/ Vocational chambers	Guidance assessment, modular class 9 successfully completed, CITP	Skilled worker master craftsman	18
CITP (6)		Apprenticeship		MENFP/ Vocational chambers	MENFP/ Vocational chambers	Guidance assessment, modular class 9 successfully completed	Assistant craftsman, CATP	18
CCM (7)		Apprenticeship		MENFP/ Vocational chambers	MENFP/ Vocational chambers	Guidance assessment, modular class 9 successfully completed	Assistant craftsman, CATP	18
Certificate of completion of EST first cycle	9th school year	Full time		MENFP	MENFP		Working life	15

(1) DESS-CAAE: diploma of specialist higher studies, certificate of proficiency in company administration (*diplôme d'études supérieures spécialisées - certificat d'aptitude à l'administration des entreprises*).

(2) DESS-DGRH: diploma of specialist higher studies, human resource direction and management (*diplôme d'études supérieures spécialisées — direction et gestion des ressources humaines*).

(3) BTS: advanced technician's certificate (*brevet de technicien supérieur*).

(4) IFBL: Luxembourg Institute for Banking Studies (*Institut de formation bancaire Luxembourg*).

(5) CATP: technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnelle*); 105 regulated trades.

(6) CITP: preliminary technical and vocational certificate (*certificat d'initiation technique et professionnelle*); 7 regulated trades.

(7) CCM: manual proficiency certificate (*certificat d'initiation manuelle*); 20 regulated trades.

BEST COPY AVAILABLE

Candidates who have passed this examination are awarded a technician's diploma *(diplôme de technicien)* specifying the division and the branches in which the candidates have been examined and stating that they have the knowledge required to embark on more advanced technical studies.

The technical side of the higher cycle leads to a national examination.

Candidates who pass this examination are awarded a diploma of completion of technical secondary studies (*diplôme de fin d'études secondaires techniques*) specifying the division and, where appropriate, the section and branches in which they have been examined and stating that the candidates have the knowledge required to go on to higher studies.

With a view to offering access to regulated occupations and admission to posts in the public sector, the diplomas in the technician training system and the technical training system confer the same rights as the diploma awarded on completion of secondary education.

Table 20. **Number of diplomas and certificates awarded, 1990, 1995 and 1998**

Diploma/certificate	**1990**	**1995**	**1998**
Conventional baccalaureate	895	827	1 039
Technical baccalaureate	361	497	666
Technician	142	166	318
CATP	1 046	770	764
CCM	100	87	88
CITP	— (1)	82	104
Master craftsman's diploma	240	202	183
BTS	— (1)	83	112
Diploma of advanced management studies	62	51	61
Certificate of study for 1st year CUL	150	160	209
Certificate of teaching studies	57	60	114
Community educator	na (2)	43	32
Medical care professional	na (2)	70	33
Nurse — specialist	na (2)	40	43
Technician engineer	61	72	61

(1) None.
(2) Not available.

SOURCE: *MINISTRY OF EDUCATION AND VOCATIONAL TRAINING.*

BEST COPY AVAILABLE

5.2. The training of trainers

5.2.1. Teachers and trainers working in initial vocational training

In technical secondary education, the following types of teacher are responsible for practical work and workshops:

(a) in the senior teaching career category:

- teachers of engineering and professors of architecture,
- teachers of science in technical secondary education,
- teachers of technical education;

(b) in the middle-ranking teaching career:

- special lecturer,
- technical instructors.

All these teachers have the status of civil servants. Apart from them, there are trainee supervisors within the workplace who perform the function of tutors for apprentices during their alternance training.

It should be borne in mind, however, that quite a few courses, especially in general subjects (languages, mathematics, etc.), are taught by secondary education teachers. These must hold a diploma evidencing at least four years' university studies in their specialist field. Their teacher training will be geared to secondary education but they may be appointed to a technical secondary education establishment.

Apart from this latter category, the teaching staff in technical secondary schools (*lycées techniques)* may also include visiting teachers (temporary outside employees recruited for a specifically defined task) and trainee teachers (future teachers during their training, see Section 5.2.2).

5.2.2. Regulation of the training of trainers and teachers in initial vocational training

The recruitment of teachers with civil servant status is based on planning the need for teaching staff, conducted annually by the Ministry of Education and Vocational Training. Recruitment is by competitive examination.

In addition to having to fulfil the conditions for admission to this examination, candidates must meet the following conditions as to diplomas:

- teachers of engineering and of architecture must hold a diploma as engineers or architects entered into the register of diplomas specified by the law of 17 June 1963, whose purpose is to protect higher education titles;
- science teachers in technical secondary education must hold a diploma awarded by an institute of higher education recognised by the State in which that institute is established, certifying to a cycle of at least four years' scientific study and entered in the register of diplomas;
- teachers in technical education must hold either a Luxembourg diploma of completion of secondary or technical secondary studies or a technician's diploma or a diploma recognised as equivalent by the Minister. In addition, they must:

  - have successfully completed at least six semesters of university studies or six semesters of special higher studies or training recognised as equivalent by the Minister,
  - be able to call upon at least three years' professional experience;
- special lecturers must meet the same initial qualification criteria as teachers in technical education, but they need only have completed two years in a specialist college of higher education. The other conditions are the same. Nevertheless, at the candidate's request and after consulting the board responsible for examining the qualification, the Minister may agree to a partial or total dispensation from the requirement of having worked in the profession;
- technical education instructors are in principle the holders of a master craftsman's diploma *(brevet de maîtrise)* in their own specialist field, and must have at least three years' work experience following immediately on the master craftsman's diploma and have passed a qualification examination. Special Grand Ducal regulations may establish specific examinations certifying to the qualification of technical instructors whose working specialist field does not entail a master craftsman's diploma.

Shortlisting in the competitive examination is a condition for admission to training, during which trainee teachers are put in charge of a small number of courses in a secondary and/or technical secondary school under the supervision of a trainee supervisor.

The initial training of teachers for post-primary education is coordinated by the *Département de formation pédagogique* in the Luxembourg University Centre (*Centre universitaire de Luxembourg)* in the form of a teaching traineeship (*stage pédagogique)*.

Their appointment as qualified teachers is based on the results achieved in theoretical and practical training.

5.2.3. The continuing training of trainers and teachers in initial vocational training

One of the tasks of the Department of Coordination of Teaching Research and Innovation (*Service de coordination de la recherche et de l'innovation pédagogique et technologique* — Script) is to organise the continuing training of teachers. Its aim is to promote the personal and professional development of teachers. It may tackle themes such as:

- technology in vocational training;
- language teaching methods;
- education in health and the environment;
- the training of instructors in the workplace, etc.

During school year 1996/97, 553 teachers took part in at least one of the 58 training activities on offer. Attendance is not compulsory.

A Script think-tank on the continuing training of post-primary teaching staff has helped to formulate quality criteria based on an analysis of standards within Europe and in other developed OECD countries. It has also paved the way for discussions on the organisation and structures required in order to develop continuing training along the lines of the professional development of teachers in Luxembourg. The resulting conclusions and proposals will be presented for detailed discussion.

5.2.4. Trainers in continuing education and training

In the absence of a framework law on continuing vocational training, the conditions for the training of trainers in this field are not explicitly defined.

In general, trainers in the field of continuing training must meet the same conditions as those applicable to trainers in initial training, at least as far as public-sector continuing training institutions are concerned.

This statement is also confirmed by Article 8 of the law of 19 July 1991 establishing an adult training service, which states that 'teaching staff for studies and courses organised by the adult training service must comply with the recruitment conditions applicable to the type of education in which they are to teach'.

This obligation does not exist for teachers working for other training providers. The conditions for their admission are often defined in an informal manner.

Each training organisation makes a judicious choice of lecturers or seminar leaders on the basis of their references and professional expertise as well as their teaching and communication skills.

5.3. Vocational and school guidance

5.3.1. Structure

At present there are three bodies active in the field of vocational and school guidance, two of which come under the Ministry of Education and Vocational Training and one under the Ministry of Labour and Employment. To promote the social and vocational integration of young people, there is constant close cooperation between these institutions. This approach has led to the creation of a common database, which also contains information on the labour market situation.

5.3.2. Psychological and Educational Guidance Centre

The Psychological and Educational Guidance Centre *(Centre de psychologie et d'orientation scolaire* — CPOS) was established by the law of April 1987. It has the following departments:

- the Psychological and School Guidance Service *(Service de psychologie et d'orientation scolaire* — SPOS);
- the University and School Information Service *(Service d'informations universitaires et scolaires)*;
- the Financial Aid and Accommodation Service *(Service des aides financières et des logements)*;
- the School Catering Service *(Service de restauration scolaire)*.

The various tasks of the SPOS — the department of particular interest in this context — are defined by the Grand Ducal regulation of 29 August 1988. The members of the SPOS have the following responsibilities towards pupils, parents and, where necessary, teachers:

- providing psychological and educational guidance to pupils in post-primary education and collaborating in the school guidance of pupils in the sixth year of primary education;

- helping students with the transition to higher education, both in their choice of study and the establishment to which they apply, providing them with the assistance they need during the course of their studies;
- facilitating young people's transfer from school to working life;
- in general, providing advice on psychological, psycho-emotional and psycho-social aspects of pupils' learning processes to parents, pupils and the institutions and individuals responsible for the education and training of pupils;
- concentrating on the organisation of psychological and school guidance services with the boards of directors and the board of inspectors of primary education in those fields with which they are concerned, and arranging for the coordination of their activities.

The 23 post-primary education establishments, together with the University Centre (*Centre universitaire)* and the Higher Institute of Technology, have their own department of psychology and academic guidance.

5.3.3. Local action for youth

The local action for youth *(action locale pour jeunes* — ALJ), which is part of the Ministry of Education and Vocational Training's Department of Vocational Training, has the following tasks:

- taking responsibility for young people in an open environment, with the aim of guiding and supporting them in their steps towards training or integration in the working world;
- socio-educational monitoring of young people taking advantage of a training measure within the framework of the CFPC (see Section 3.3.2.2), both during the training phase and while they are settling down in work and society;
- the measures designed to support the period of transition from school to working life in the preparatory system in technical secondary education, in order to avoid marginalisation;
- taking responsibility for young people as part of the preliminary technical and vocational certificate (CITP) training, particularly those who have dropped out during their education and those who, although having completed their training, do not yet have a contract of employment and also those who, although they have been recruited after training, are at risk of losing their jobs.

5.3.4. Employment Authority's Department of Vocational Guidance

The employment authority's Department of Vocational Guidance *(Service de l'orientation professionnelle de l'administration de l'emploi — ADEM*) comes under the Ministry of Labour and Employment. Its task is the vocational guidance of young people being trained in technical secondary schools (*lycées techniques)* and the management of apprenticeship vacancies (see Section 3.2.5). Every employer must notify this department whenever an apprenticeship placement becomes available, and it takes responsibility for directing young people seeking an apprenticeship towards those employers.

This same department has developed a competence unit having many multimedia tools designed to help young people in the choice of a trade that is taught in Luxembourg and neighbouring countries.

In addition to this clearly defined mission addressed to a target group of young people, the service is increasingly being approached by the unemployed seeking individual advice on the options for retraining or reintegration into work based on their skills. Appropriate tools and structures are being formulated to offer every individual a personal itinerary for integration or reintegration.

Chapter 6
Trends and perspectives

There are a number of special features of the context of the Luxembourg education and training system, whose origins are to be found in the specific situation of the country.

The factors here are the vital need to learn several languages, the number and scope of subjects taught and the high percentage of young foreigners in the system.

In the field of vocational training and integration into work, there is also a competitive situation in which young residents are competing in the labour market with those in the vast catchment area that the wider region represents.

These special features do little to facilitate the debate on education, its quality and the direction to be taken. It follows that the challenge of renewal and adaptation to the demands for quality must be met with circumspection, determination and consistency.

6.1. Training and employment

6.1.1. The law of 31 July 1995 on employment and training

The law of 31 July 1995 is intended to provide a legal basis for the National Employment Pact concluded by the social partners and the government in the context of the tripartite coordination committee. To an extent, it incorporates the view of the tripartite committee expressed on 3 May 1995. In particular, it contains measures relating to the training and vocational integration of jobseekers.

This law can be illustrated by a few of its practical measures:

- improved evaluation of the training needs of different sectors of the economy should facilitate rapid, well targeted training that ensures that jobseekers are swiftly integrated into the labour market. This is one aspect of the increasingly popular 'made-to-measure' approach;
- a major campaign by the Ministry of Education and Vocational Training and the employment authority's Department of Vocational Guidance (*Service de l'orientation professionnelle — Administration de l'emploi — ADEM*) aims to motivate young people to embark on manual technical trades, for which there is a shortage of labour (by relaunching apprenticeship contracts and guidance of young people towards small and medium-sized enterprises (SMEs) in the craft sector);
- discussions taking place with employers' organisations to determine whether an agreement between the parties might contain a priority or even a promise of recruitment by the trainer/employer in favour of their apprentices;
- special aid paid to employers undertaking to take on trainees on practical placements;
- encouragement of one-off, targeted in-company training measures, which include priority recruitment for participants. These training measures guide jobseekers selectively and specifically towards what is needed on the market. They are aimed at every level of qualification.

6.1.2. Tripartite training

On 16 November 1996, the Ministry of Education and Vocational Training issued a decree setting up a tripartite advisory committee on vocational training. This committee delivers opinions on every initial and continuing training initiative. The aim is to ensure that the objectives of vocational training are more closely aligned with the various sectors of the Luxembourg economy. The committee membership consists of members of the government and representatives from employers, unions and the vocational chambers.

6.1.3. The national action plan to promote employment

The national action plan recommends a number of measures that might help with the transition from school to working life. These measures have the twofold aim of reducing the number of young people who leave the school system early and of preparing young people for a working world in the process of change.

In this context, the need is to revise the provisions of the existing Law in order to clarify and delimit the scope of a number of provisions.

The purpose of technical secondary education as a whole, and of technician training in particular, needs to be clarified. Too many young people are continuing to embark upon training courses, which are quickly overtaken by events.

At the same time, ways must be found of improving the process of guidance and transition of pupils, especially between classes 9/10 and 11/12.

Lastly, the training network must be more closely intermeshed in order to offer those at risk of exclusion within the school more options for training and qualification. In this context, one measure is to open up the apprenticeship path to adults.

With regard to the vocational integration measures for which the Department of Vocational Guidance (*Service de l'orientation professionnelle — ADEM*) is directly responsible, it should be stressed that they will be accompanied in a more structured manner by the training measures laid down in the Law of 31 July 1995.

6.2. Continuing vocational training

The basic legislation governing continuing training is the law of 4 September 1990 reforming technical secondary education and continuing vocational training. Even though it took over the whole set of measures laid down in the law of 21 May 1979, the law cannot take into account the many factors entailed in imparting a substantial boost to continuing training.

It is for this reason that the drafting of legislation to regulate the operation of continuing training in Luxembourg in general has met with the agreement of all the bodies involved, the social partners and the government.

What is needed now is to formulate a general framework that defines the funding procedures, access to continuing training, certification and protection of investment. This general framework is placed at the disposal of bodies that are free to make use of it, but, at the same time, leaves a wide scope for negotiation between social partners and employers.

The objective is to encourage in-company continuing vocational training to be structured in a qualitative manner.

When formulating a training plan, the conditions for access to training will be specified, in terms of both collective and individual access by employees. In an initial phase, individual access must be preserved in its entirety as it now exists and later there must be detailed rethinking when drafting legislation on the 'second qualification route' and/or 'the economic, political and social training of citizens'.

The State contribution will be, according to the views of the employers, in the form of direct aid or tax relief. In any event, government financial aid will be given at source, in other words it will be given to enterprises and not to training bodies. Dynamism and flexibility will be considerably improved through better matching of employers' needs and the provision of training by training bodies.

The concept of the protection of investment enables employers to be refunded for their training costs.

6.3. Integration through schooling

European societies at the end of the 20th century are typically multicultural, but this is particularly true of Luxembourg (see Chapter 1.2). It is a challenge to the educational system on two levels: firstly, the system must ensure the success of integration; and secondly, it must work for the future of all the young people by giving them a good education and training, to promote their employability and mobility.

Luxembourg schools are stepping up their efforts in order to meet this challenge.

6.3.1. Language situation in workplaces and schools

In Luxembourg enterprises, the language situation differs a good deal depending on the sector of activities and the region. Virtually every scenario can be found. In general communications within a workplace work reasonably well, even though they may be in a variety of languages, with a mixture of Luxembourgish, German and French.

The Ministry of Education and Vocational Training believes that a school that hopes to fulfil its mission of integration should not, during education, separate young people who will later be expected to work together within the workplace. Moreover, in view of the small numbers on certain courses, it would be unrealistic to try to duplicate the 112 courses and occupational paths that the economy is asking the school to set up.

For generations now, all technical and craft training courses in Luxembourg have been modelled on the German tradition. This approach is reflected in the concepts underlying teaching, in the choice of textbooks and in the language used to teach the subject. Administrative and commercial training courses are the sole exception, since the concepts of law and accounting applied in Luxembourg are derived from French law.

Technician diplomas and the diploma of completion of technical secondary studies (technical baccalaureate) awarded in technical secondary education do not just certify a vocational qualification but they also offer access to higher studies and administrative careers in which considerable language skills are required.

6.3.2. Languages used in teaching

In principle, pupils aiming at the various diplomas must learn the following number of languages:

- technical baccalaureate *(baccalauréat technique)*: three languages;
- technician's diploma *(diplôme de technicien)*: two languages;
- technical and vocational proficiency certificate (*certificat d'aptitude technique et professionnelle)*: one language.

In the administrative and commercial divisions, most branches are taught in French. Three languages are compulsory: French, German and English.

In the electrotechnical division, most branches are taught in German, with French and English being compulsory. Preliminary studies have not revealed any significant difference between the results of Luxembourg and non-Luxembourg pupils arising from the use of one of the languages in education. The languages used in the vocational training branches and the relative importance of languages in general differ depending on the special field.

A multilingual terminology setting out the basic technical terms for the various kinds of training is to be drawn up. Preliminary experiments will be conducted on visual display of the information and ease of consultation on CD-ROM.

Basic textbooks, which will be kept on the curriculum for several years as the standard textbooks, will be translated where necessary.

Guidance on work-oriented teaching will help to base assessments more on the practical and oral side of work.

In the courses preparing for the master craftsman's diploma (*brevet de maîtrise*) the management courses have all been translated into French. The courses on vocational theory for highly technological trades (electrotechnology and mechanical engineering) will gradually become available in French. In the examinations on completion of apprenticeship and the master craftsman's examination, the questionnaires are in French and in German.

With regard to the vocational training offered in continuing training centres, the question of the language used to teach courses is approached in a very flexible manner, through the use of Luxembourgish, French or German. Internal language differentiation is provided during the courses.

6.3.3. Cross-border cooperation

Cross-border cooperation within the framework of cooperation between the Saar, Lorraine, Luxembourg, the Rhineland-Palatinate and the Belgian Province of Luxembourg is currently being set up, both in initial vocational training — especially apprenticeship — and continuing vocational training. There are already cases of apprentices doing their apprenticeship in Luxembourg enterprises and at the same time attending alternance courses in Germany, Belgium or France, or vice versa. The training options for newly arrived trainees will be expanded by these means.

6.3.4. Language school

The creation of a language school (*école des langues*) in one or more technical secondary schools (*lycées techniques)* is being considered, both in terms of curriculum and resources to be invested. The aim is to provide young newly arrived pupils aged at least 12 with a facility for the intensive learning of languages in a school context.

Annexes

Annex 1

Acronyms and abbreviations

ADEM	*Administration de l'emploi* Employment authority
BTS	*Brevet de technicien supérieur* Advanced technician's certificate
CATP	*Certificat d'aptitude technique et professionnelle* Technical and vocational proficiency certificate
CCM	*Certificat de capacité manuelle* Manual proficiency certificate
CEP-L	*Chambre des employés privés* Chamber of Private-sector Employees
CITP	*Certificat d'initiation technique et professionnelle* Preliminary technical and vocational certificate
CPOS	*Centre de psychologie et d'orientation scolaire* Psychological and Educational Guidance Centre
CRP	*Centre de recherche public* Public research centre
CUL	*Centre universitaire de Luxembourg* Luxembourg University Centre
ES	*Enseignement secondaire* Secondary education
EST	*Enseignement secondaire technique* Technical secondary education
FBG 1	*Formation bancaire générale 1* General course in Banking 1
IEES	*Institut d'études éducatives et sociales* Institute for Educational and Social Studies
IFBL	*Institut de formation bancaire Luxembourg* Luxembourg Institute for Banking Studies
IFES	*Institut de formation économique et sociale* Institute for Economic and Social Training
IGSS	*Inspection générale de la sécurité sociale* General Social Security Inspectorate
INFPC	*Institut national pour le développement de la formation professionnelle continue* National Institute for the Development of Continuing Training
ISERP	*Institut supérieur d'études et de recherches pédagogiques* Higher Institute for Educational Studies and Research
IST	*Institut supérieur de technologie* Higher Institute of Technology
IUIL	*Institut universitaire international de Luxembourg* Luxembourg International University Institute
LCGB	*Lëtzebuerg Chrëschtleche Gewerkschaftsbond* Christian Trade Union Federation of Luxembourg
MENFP	*Ministère de l'éducation nationale et de la formation professionnelle* Ministry of Education and Vocational Training
OGB-L	*Onofhängege Gewerkschaftsbond Lëtzebuerg* Independent Workers' Union of Luxembourg
OLAP	*Office luxembourgeois pour l'accroissement de la productivité* National Luxembourg Office for Productivity Enhancement
Script	*Service de la coordination de la recherche et de l'innovation pédagogique et technologique* Department of Coordination of Teaching Research and Innovation
SFA	*Service de la formation des adultes* Adult Training Service

BEST COPY AVAILABLE

SREA	*Service rééducatif ambulatoire* Out-patient Rehabilitation Service
Statec	*Service central de la statistique et des études économiques* Central Statistical and Economic Research Department

Annex 2

Addresses of leading organisations

Ministère de l'éducation nationale et de la formation professionnelle
29, rue Aldringen
L-2926 Luxembourg
Tel. (352) 478 51 00
Fax (352) 478 51 46
Web site: http://www.men.lu/

Service de la formation professionnelle
29, rue Aldringen
L-2926 Luxembourg
Tel. (352) 478 51 00
Fax (352) 47 41 16
E-mail: plier@men.lu
Web site: http://www.men.lu

Centre de psychologie et d'orientation scolaire
280, route de Longwy
L-1940 Luxembourg
Tel. (352) 45 64 64
Fax (352) 45 45 44 or 45 56 56
Web site: http://www.cedies.lu

Chambre de commerce du Grand Duché de Luxembourg
31, boulevard Konrad Adenauer
L-2981 Luxembourg
Tel. (352) 423 93 91
Fax (352) 43 83 26
E-mail: chamcom@cc.lu
Web site: http://www.cc.lu

Chambre des employés privés
13, rue de Bragance
L-1255 Luxembourg
Tel. (352) 44 40 91
Fax (352) 444 09 12 50
E-mail: direction@cepl.lu
Web site: http://www.cepl.lu

Chambre d'agriculture
261, route d'Arlon
L-8011 Strassen
Tel. (352) 31 38 76
Fax (352) 31 38 75
E-mail: chaagri@pt.lu
Web site: http://www.produitduterroir.lu

Chambre de travail
23, rue des Bruyères
L- 1012 Luxembourg
Tel. (352) 48 86 16
Fax (352) 48 06 14
E-mail: ak-l@ak-l.lu
Web site: http://www.ak-l.lu

Chambre des métiers
2, circuit de la Foire Internationale
BP 1604
L-1016 Luxembourg
Tel. (352) 426 76 71
Fax (352) 42 67 87
Web site: http://www.cdm.lu

Institut national pour le développement de la formation professionnelle continue (INFPC)
38, rue de l'Avenir
L-1147 Luxembourg
Tel. (352) 46 96 12-1
Fax (352) 46 96 20
E-mail: infpc@infpc.lu
Web site: http://www.infpc.lu

Office luxembourgeois pour l'accroissement de la productivité (OLAP)
17, boulevard Royal
L-2449 Luxembourg
Tel. (352) 48 98 48-1
Fax (352) 40 39 72
E-mail: form.continue@olap.lu
Web site: http://www.olap.lu

Annex 3

Glossary

Cours universitaire — University course
Since Luxembourg does not have a full university education cycle, the first year of studies in various subjects is arranged by the *Centre universitaire de Luxembourg*.

Cycle court — Short cycle
Higher management studies: a two-year course at the *Centre universitaire de Luxembourg*.

Projets d'établissement — School teaching plans
These are teaching plans drawn up individually by school establishments, as part of the move towards decentralisation.

Classes d'accueil — Reception classes
Classes set up for children who have not entered the Luxembourg school system from the beginning of the system.

Classes d'attente — Interim classes
An experimental class in the City of Luxembourg, where the first year of primary education is split into two years.

Classes spéciales — Special classes
Classes set up in primary education for all children having problems with schooling.

Professeur — Secondary school teacher
Schoolteacher in secondary and/or technical secondary education.

Maîtrise/*Meisterbrief* — Master craftsmanship training
Training that regulates access to craft trades and occupations in commerce and industry as well as certain liberal professions.

Emploi-formation — Alternance training for banking
A two-year training course on banking, combining practical work in a financial establishment with theoretical training. This is organised by the *Institut de formation bancaire, Luxembourg* (IFBL), and does not come under the Ministry of Education and Vocational Training.

Projet PROF — 'PROF' project
A major project conducted in relation to the reform of the subjects and methods of initial vocational training in the intermediate and advanced cycles of education, based on the occupational profiles required.

Annex 4

Bibliography

Aperçu sur le système d'enseignement luxembourgeois, MEN, 1987.

The role of social partners in initial and continuing training — The case of Luxembourg, Cedefop, 1988.

'Notre enseignement primaire', *Publications mosellanes*, Diederich, V, Mémorial 1989, pp. 337–368.

L'école luxembourgeoise face au défi de l'intégration des enfants d'origine étrangère, MEN 1991.

'La formation professionnelle au Luxembourg', (Document) Script, MEN, 1991.

Dossier national d'information sur les structures du système éducatif luxembourgeois, Eurydice, 1991.

Demain l'école, Le système éducatif luxembourgeois face au changement, MEN, 1992.

Rapport national sur la formation professionnelle continue au Grand-Duché de Luxembourg suivant l'article 11 de la Décision du Conseil du 29 mai 1990 sur le programme d'action FORCE, Lenert, Jerry, MEN December 1993.

Vocational education and training in Luxembourg, Cedefop, 1994 (FR, EN, DE, PT, ES).

Rapport national sur la formation professionnelle suivant l'article 10 de la décision du conseil du 6 décembre 1994 sur le programme d'action Leonardo da Vinci, Paul Dickes, CEPS, December 1996.

Teachers and trainers in vocational education and training, Volume 3, Austria, Greece, Luxembourg and the Netherlands. Cedefop, 1997 Jerry Lenert, Alexis Werné.

Annuaire statistique, Statec, 1997.

Le Luxembourg en chiffres 1998, Statec, 1998.

Rapport d'activité du Ministère de l'éducation nationale et de la formation professionnelle, MENFP 1994, 1995, 1996, 1997.

CEDEFOP — European Centre for the Development of Vocational Training

Vocational education and training in Luxembourg

José Frideres-Poos
Gilbert Engel
Jerry Lenert

Luxembourg — Office for Official Publications of the European Communities, 2002

2002 — 95 pp. — 21 x 29.7 cm

ISBN 92-828-7481-8

Cat. No HX-22-99-854-EN-C

Price (excluding VAT) in Luxembourg: EUR 18.50

Publication No: 7012 EN

Venta • Salg • Verkauf • Πωλήσεις • Sales • Vente • Vendita • Verkoop • Venda • Myynti • Försäljning
http://eur-op.eu.int/general/en/s-ad.htm

BELGIQUE/BELGIË

Jean De Lannoy

Avenue du Roi 202/Koningslaan 202
B-1190 Bruxelles/Brussel
Tél. (32-2) 538 43 08
Fax (32-2) 538 08 41
E-mail: jean.de.lannoy@infoboard.be
URL: http://www.jean-de-lannoy.be

**La librairie européenne/
De Europese Boekhandel**

Rue de la Loi 244/Wetstraat 244
B-1040 Bruxelles/Brussel
Tél. (32-2) 295 26 39
Fax (32-2) 735 08 60
E-mail: mail@libeurop.be
URL: http://www.libeurop.be

Moniteur belge/Belgisch Staatsblad

Rue de Louvain 40-42/Leuvenseweg 40-42
B-1000 Bruxelles/Brussel
Tél. (32-2) 552 22 11
Fax (32-2) 511 01 84
E-mail: eusales@just.fgov.be

DANMARK

J. H. Schultz Information A/S

Herstedvang 12
DK-2620 Albertslund
Tlf. (45) 43 63 23 00
Fax (45) 43 63 19 69
E-mail: schultz@schultz.dk
URL: http://www.schultz.dk

DEUTSCHLAND

Bundesanzeiger Verlag GmbH

Vertriebsabteilung
Amsterdamer Straße 192
D-50735 Köln
Tel. (49-221) 97 66 80
Fax (49-221) 97 66 82 78
E-Mail: vertrieb@bundesanzeiger.de
URL: http://www.bundesanzeiger.de

ΕΛΛΑΔΑ/GREECE

G. C. Eleftheroudakis SA

International Bookstore
Panepistimiou 17
GR-10564 Athina
Tel. (30-1) 331 41 80/1/2/3/4/5
Fax (30-1) 325 84 99
E-mail: elebooks@netor.gr
URL: elebooks@hellasnet.gr

ESPAÑA

Boletín Oficial del Estado

Trafalgar, 27
E-28071 Madrid
Tel. (34) 915 38 21 11 (libros)
913 84 17 15 (suscripción)
Fax (34) 915 38 21 21 (libros).
913 84 17 14 (suscripción)
E-mail: clientes@com.boe.es
URL: http://www.boe.es

Mundi Prensa Libros, SA

Castelló, 37
E-28001 Madrid
Tel. (34) 914 36 37 00
Fax (34) 915 75 39 98
E-mail: libreria@mundiprensa.es
URL: http://www.mundiprensa.com

FRANCE

Journal officiel

Service des publications des CE
26, rue Desaix
F-75727 Paris Cedex 15
Tél. (33) 140 58 77 31
Fax (33) 140 58 77 00
E-mail: europublications@journal-officiel.gouv.fr
URL: http://www.journal-officiel.gouv.fr

IRELAND

Alan Hanna's Bookshop

270 Lower Rathmines Road
Dublin 6
Tel. (353-1) 496 73 98
Fax (353-1) 496 02 28
E-mail: hannas@iol.ie

ITALIA

Licosa SpA

Via Duca di Calabria, 1/1
Casella postale 552
I-50125 Firenze
Tel. (39) 055 64 83 1
Fax (39) 055 64 12 57
E-mail: licosa@licosa.com
URL: http://www.licosa.com

LUXEMBOURG

Messageries du livre SARL

5, rue Raiffeisen
L-2411 Luxembourg
Tél. (352) 40 10 20
Fax (352) 49 06 61
E-mail: mail@mdl.lu
URL: http://www.mdl.lu

NEDERLAND

SDU Servicecentrum Uitgevers

Christoffel Plantijnstraat 2
Postbus 20014
2500 EA Den Haag
Tel. (31-70) 378 98 80
Fax (31-70) 378 97 83
E-mail: sdu@sdu.nl
URL: http://www.sdu.nl

PORTUGAL

Distribuidora de Livros Bertrand Ld.ª

Grupo Bertrand, SA
Rua das Terras dos Vales, 4-A
Apartado 60037
P-2700 Amadora
Tel. (351) 214 95 87 87
Fax (351) 214 96 02 55
E-mail: dlb@ip.pt

Imprensa Nacional-Casa da Moeda, SA

Sector de Publicações Oficiais
Rua da Escola Politécnica, 135
P-1250-100 Lisboa Codex
Tel. (351) 213 94 57 00
Fax (351) 213 94 57 50
E-mail: spoce@incm.pt
URL: http://www.incm.pt

SUOMI/FINLAND

**Akateeminen Kirjakauppa/
Akademiska Bokhandeln**

Keskuskatu 1/Centralgatan 1
PL/PB 128
FIN-00101 Helsinki/Helsingfors
P./tfn (358-9) 121 44 18
F./fax (358-9) 121 44 35
Sähköposti: sps@akateeminen.com
URL: http://www.akateeminen.com

SVERIGE

BTJ AB

Traktorvägen 11-13
S-221 82 Lund
Tlf. (46-46) 18 00 00
Fax (46-46) 30 79 47
E-post: btjeu-pub@btj.se
URL: http://www.btj.se

UNITED KINGDOM

The Stationery Office Ltd

Customer Services
PO Box 29
Norwich NR3 1GN
Tel. (44) 870 60 05-522
Fax (44) 870 60 05-533
E-mail: book.orders@theso.co.uk
URL: http://www.itsofficial.net

ISLAND

Bokabud Larusar Blöndal

Skólavördustig, 2
IS-101 Reykjavik
Tel. (354) 552 55 40
Fax (354) 552 55 60
E-mail: bokabud@simnet.is

SCHWEIZ/SUISSE/SVIZZERA

Euro Info Center Schweiz

c/o OSEC Business Network Switzerland
Stampfenbachstraße 85
PF 492
CH-8035 Zürich
Tel. (41-1) 365 53 15
Fax (41-1) 365 54 11
E-mail: eics@osec.ch
URL: http://www.osec.ch/eics

BĂLGARIJA

Europress Euromedia Ltd

59, blvd Vitosha
BG-1000 Sofia
Tel. (359-2) 980 37 66
Fax (359-2) 980 42 30
E-mail: Milena@mbox.cit.bg
URL: http://www.europress.bg

CYPRUS

Cyprus Chamber of Commerce and Industry

PO Box 21455
CY-1509 Nicosia
Tel. (357-2) 88 97 52
Fax (357-2) 66 10 44
E-mail: demetrap@ccci.org.cy

EESTI

Eesti Kaubandus-Tööstuskoda

(Estonian Chamber of Commerce and Industry)
Toom-Kooli 17
EE-10130 Tallinn
Tel. (372) 646 02 44
Fax (372) 646 02 45
E-mail: einfo@koda.ee
URL: http://www.koda.ee

HRVATSKA

Mediatrade Ltd

Pavla Hatza 1
HR-10000 Zagreb
Tel. (385-1) 481 94 11
Fax (385-1) 481 94 11

MAGYARORSZÁG

Euro Info Service

Szt. István krt.12
III emelet 1/A
PO Box 1039
H-1137 Budapest
Tel. (36-1) 329 21 70
Fax (36-1) 349 20 53
E-mail: euroinfo@euroinfo.hu
URL: http://www.euroinfo.hu

MALTA

Miller Distributors Ltd

Malta International Airport
PO Box 25
Luqa LQA 05
Tel. (356) 66 44 88
Fax (356) 67 67 99
E-mail: gwirth@usa.net

NORGE

Swets Blackwell AS

Hans Nielsen Hauges gt. 39
Boks 4901 Nydalen
N-0423 Oslo
Tel. (47) 23 40 00 00
Fax (47) 23 40 00 01
E-mail: info@no.swetsblackwell.com
URL: http://www.swetsblackwell.com.no

POLSKA

Ars Polona

Krakowskie Przedmiescie 7
Skr. pocztowa 1001
PL-00-950 Warszawa
Tel. (48-22) 826 12 01
Fax (48-22) 826 62 40
E-mail: books119@arspolona.com.pl

ROMÂNIA

Euromedia

Str.Dionisie Lupu nr. 65, sector 1
RO-70184 Bucuresti
Tel. (40-1) 315 44 03
Fax (40-1) 312 96 46
E-mail: euromedia@mailcity.com

SLOVAKIA

Centrum VTI SR

Nám. Slobody, 19
SK-81223 Bratislava
Tel. (421-7) 54 41 83 64
Fax (421-7) 54 41 83 64
E-mail: europ@tbb1.sltk.stuba.sk
URL: http://www.sltk.stuba.sk

SLOVENIJA

GV Zalozba

Dunajska cesta 5
SLO-1000 Ljubljana
Tel. (386) 613 09 1804
Fax (386) 613 09 1805
E-mail: europ@gvestnik.si
URL: http://www.gvzalozba.si

TÜRKIYE

Dünya Infotel AS

100, Yil Mahallessi 34440
TR-80050 Bagcilar-Istanbul
Tel. (90-212) 629 46 89
Fax (90-212) 629 46 27
E-mail: aktuel.info@dunya.com

ARGENTINA

World Publications SA

Av. Cordoba 1877
C1120 AAA Buenos Aires
Tel. (54-11) 48 15 81 56
Fax (54-11) 48 15 81 56
E-mail: wpbooks@infovia.com.ar
URL: http://www.wpbooks.com.ar

AUSTRALIA

Hunter Publications

PO Box 404
Abbotsford, Victoria 3067
Tel. (61-3) 94 17 53 61
Fax (61-3) 94 19 71 54
E-mail: jpdavies@ozemail.com.au

BRESIL

Livraria Camões

Rua Bittencourt da Silva, 12 C
CEP
20043-900 Rio de Janeiro
Tel. (55-21) 262 47 76
Fax (55-21) 262 47 76
E-mail: livraria.camoes@incm.com.br
URL: http://www.incm.com.br

CANADA

Les éditions La Liberté Inc.

3020, chemin Sainte-Foy
Sainte-Foy, Québec G1X 3V6
Tel. (1-418) 658 37 63
Fax (1-800) 567 54 49
E-mail: liberte@mediom.qc.ca

Renouf Publishing Co. Ltd

5369 Chemin Canotek Road, Unit 1
Ottawa, Ontario K1J 9J3
Tel. (1-613) 745 26 65
Fax (1-613) 745 76 60
E-mail: order.dept@renoufbooks.com
URL: http://www.renoufbooks.com

EGYPT

The Middle East Observer

41 Sherif Street
Cairo
Tel. (20-2) 392 69 19
Fax (20-2) 393 97 32
E-mail: inquiry@meobserver.com
URL: http://www.meobserver.com.eg

MALAYSIA

EBIC Malaysia

Suite 45.02, Level 45
Plaza MBf (Letter Box 45)
8 Jalan Yap Kwan Seng
50450 Kuala Lumpur
Tel. (60-3) 21 62 92 98
Fax (60-3) 21 62 61 98
E-mail: ebic@tm.net.my

MÉXICO

Mundi Prensa México, SA de CV

Río Pánuco, 141
Colonia Cuauhtémoc
MX-06500 México, DF
Tel. (52-5) 533 56 58
Fax (52-5) 514 67 99
E-mail: 101545.2361@compuserve.com

SOUTH AFRICA

Eurochamber of Commerce in South Africa

PO Box 781738
2146 Sandton
Tel. (27-11) 884 39 52
Fax (27-11) 883 55 73
E-mail: info@eurochamber.co.za

SOUTH KOREA

**The European Union Chamber of
Commerce in Korea**

5th Fl, The Shilla Hotel
202, Jangchung-dong 2 Ga, Chung-ku
Seoul 100-392
Tel. (82-2) 22 53-5631/4
Fax (82-2) 22 53-5635/6
E-mail: eucck@eucck.org
URL: http://www.eucck.org

SRI LANKA

EBIC Sri Lanka

Trans Asia Hotel
115 Sir Chittampalam
A. Gardiner Mawatha
Colombo 2
Tel. (94-1) 074 71 50 78
Fax (94-1) 44 87 79
E-mail: ebicsl@slnet.ik

T'AI-WAN

Tycoon Information Inc

PO Box 81-466
105 Taipei
Tel. (886-2) 87 12 88 86
Fax (886-2) 87 12 47 47
E-mail: euitupe@ms21.hinet.net

UNITED STATES OF AMERICA

Bernan Associates

4611-F Assembly Drive
Lanham MD 20706-4391
Tel. (1-800) 274 44 47 (toll free telephone)
Fax (1-800) 865 34 50 (toll free fax)
E-mail: query@bernan.com
URL: http://www.bernan.com

ANDERE LÄNDER
OTHER COUNTRIES
AUTRES PAYS

Bitte wenden Sie sich an ein Büro Ihrer Wahl/Please contact the sales office of your choice/Veuillez vous adresser au bureau de vente de votre choix

Office for Official Publications of the European Communities
2, rue Mercier
L-2985 Luxembourg
Tel. (352) 29 29-42455
Fax (352) 29 29-42758
E-mail: info-info-opoce@cec.eu.int
URL: publications.eu.int

BEST COPY AVAILABLE

CEDEFOP — European Centre for the Development of Vocational Training
Europe 123
GR-57001 Thessaloniki (Pylea)

Postal address:
PO Box 22427
GR-55102 Thessaloniki
Tel. (30) 310 490 111
Fax (30) 310 490 020
E-mail: info@cedefop.eu.int
Homepage: www.cedefop.eu.int
Interactive web site: www.trainingvillage.gr

4 5 16
CEDEFOP
HX-22-99-854-EN-C

Vocational education and training in Luxembourg

Price (excluding VAT) in Luxembourg: EUR 18.50

ISBN 92-828-7481-8

9 789282 874813

OFFICE FOR OFFICIAL PUBLICATIONS
OF THE EUROPEAN COMMUNITIES

L-2985 Luxembourg

7012 EN

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

ERIC®

NOTICE

Reproduction Basis

☑ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").

EFF-089 (3/2000)